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REPORT V

International Labour Conference

TWENTY-THIRD SESSION
GENEVA, 1937

Reduction of Hours of Work in the Chemical Industry

Fifth Item on the Agenda



GENEVA
INTERNATIONAL LABOUR OFFICE
—
1937

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INTRODUCTION

The general Draft Convention providing for the reduction of hours to forty in the week adopted by the Nineteenth Session of the International Labour Conference (1935) contains the following provision

ARTICLE I

Each Member of the International Labour Organisation which ratifies this Convention declares its approval of

- (a) the principle of a forty-hour week applied in such a manner that the standard of living is not reduced in consequence, and
- (b) the taking or facilitating of such measures as may be judged appropriate to secure this end,

and undertakes to apply this principle to classes of employment in accordance with the detailed provisions to be prescribed by such separate Conventions as are ratified by that Member

The part of the declaration concerning the standard of living of the workers was amplified in a separate resolution

This general Draft Convention is intended to serve as a basis for a series of Conventions each applying to one or more specific classes of employment. The Nineteenth Session of the Conference adopted one measure of this kind, it also had a first discussion on several other proposed Draft Conventions and decided to request the Governing Body of the International Labour Office to consider the possibility of placing on the Agenda of subsequent Sessions of the Conference the reduction of hours of work in a number of industries, including the chemical industry

A resolution on the chemical industry moved by Mr Kupers, Netherlands Workers' Delegate, and adopted by the Conference by 73 votes to 19, runs as follows .

Considering

That in all the leading countries of the world the chemical industry is one of the most important,

That in the seven most important industrial countries more than 1,300,000 workers are employed in this industry alone,

That the formation of big trusts of international significance not only in the chemical industry in the narrower sense of the term but also in the larger sense (e g mineral oil, artificial silk, match-making, sugar, soap, margarine and oil industries) has assumed proportions unequalled in any industry,

That nationally, in practically every section of the chemical industry, arrangements exist between the concerns and firms governing the prices, quantities marketed, markets and quantities to be produced of the several products, according to methods of production, consumption and other factors,

That consequently in the chemical industry the competitive struggle has to a large extent been replaced by close co-operation ;

That while during the present world economic depression the prices of other commodities have slumped tremendously, the wholesale prices of chemical products have shown great stability, both on the world market and the internal markets of the different countries,

That, however, as a result of rationalisation, constant scientific research and continued technical development of the industry, many tens of thousands of workers have been dismissed,

That in the United States and Italy the overwhelming majority, and in Germany and Great Britain a substantial proportion, of the workers in the chemical industry do not work more than forty hours a week,

That all these circumstances not only contribute to facilitating a shortening of working time in the chemical industry but render such a shortening also expedient and even urgently necessary,

That in the chemical industry largely unskilled labour is employed and work is performed which can be learnt within a short time, and

That therefore an international reduction of working hours in the chemical industry would be excellently suited to give employment not only to the workless of the industry itself but to workless of other industries as well,

The Conference invites the Governing Body of the International Labour Office to consider the desirability of indicating the chemical industry in its largest sense as one of the industries for which an international reduction of working hours shall be primarily proposed at the 1936 International Labour Conference

In considering the action to be taken on this resolution, the Governing Body at its Seventy-third Session (October 1935) requested the Office to prepare a Report on the law and practice with regard to hours of work in the chemical industry. On the basis of this Report it decided at its Seventy-fourth Session (February 1936) to place the question of the reduction of hours of work in the chemical industry on the Agenda of the Twenty-third Session of the International Labour Conference (1937). At its next Session (April 1936) the Governing Body considered

the method to be adopted by the Office for consulting experts on the question, and decided to convene at the end of 1936 or the beginning of 1937 a preparatory technical tripartite meeting, to which the States with over 40,000 persons employed in the chemical industry would be invited, and which would also be open to States with a chemical industry of importance. The Governing Body was to be represented by three of its members, one for each group.

This Meeting was held at Geneva from 7 to 11 December 1936 and was attended by 57 persons, representing 11 countries, as delegates or advisers. Its proceedings began with a comprehensive general discussion on the technical, economic and social problems relating to the chemical industry and continued with a consideration of the definition of the industry. The results of its work were set forth in a report submitted to the Governing Body, the text of which appears in an appendix to this Report.

Lastly, the Governing Body decided that the Report to be placed before the Twenty-third Session of the Conference should be such as to enable it either to follow the usual double-discussion procedure and hold a first discussion at that Session, or to take a final decision at once on the adoption of a Draft Convention if this were considered preferable.

The present Report accordingly consists of two parts. Part I gives an account of existing regulations on hours of work in the chemical industry and an examination of the problems arising in connection with the drafting of international regulations, and concludes with a list of points on which the Office suggests that Governments might be consulted should the Conference decide to follow the usual procedure.

This part of the Report is based primarily on the regulations special to the chemical industry. In a separate report¹, however, are briefly summarised the provisions of laws and regulations on hours of work applying to industry as a whole in a large number of countries. In making this distinction the Office is continuing the practice followed in preparing the grey-blue reports on hours of work submitted to preceding Sessions of the Conference.

¹ *Reduction of Hours of Work in Printing and Kindred Trades — Reduction of Hours of Work in the Chemical Industry*. Appendix: Principal Statutory Provisions limiting Hours of Work in Industry. Geneva, INTERNATIONAL LABOUR OFFICE, 1937.

The countries whose regulations are examined in this Report are in the first place the majority of the principal producers of chemical products, that is to say, those in which more than 10,000 workers are engaged in the chemical industry, according to the most recent statistics available. These countries are: Austria, Belgium, Czechoslovakia, France, Germany, Great Britain, Italy, Japan, the Netherlands, Poland, Sweden, Switzerland, the United States, and the U.S.S.R.

In addition to these countries, several others for which a considerable amount of information was available have also been included, namely, the Argentine Republic, Australia, Egypt, Estonia, Greece, India, New Zealand, Norway, Philippine Islands, Rumania, Spain, and Yugoslavia.

The information available for Estonia, India, Japan, the Netherlands, and Yugoslavia consisted altogether or partly in practical regulations on hours of work for certain undertakings in the industry.

Part II of this Report contains a commentary on the text of a Draft Convention proposed by the Office for consideration should the Conference decide to take a final decision on the question before it.

PART I

BASIS FOR A FIRST DISCUSSION

I. — NATURE AND ORGANISATION OF THE WORK

It is difficult to determine exactly what the term "the chemical industry" means. The reason is probably that the industry is one of the few that derives its name from a science. The fact is that in most undertakings to whatever branch of industry they belong, some chemical process or other is carried out. Further, text-books of chemical technology cover a large number of productive activities many of which obviously cannot be regarded as belonging to the chemical industry. Finally, as will appear below, the administrative measures adopted in the various countries that regulate employment in the chemical industry can no more serve as a guide for the definition of the industry than the definitions adopted for the purposes of national statistics.

However defined, the chemical industry makes use of a great variety of technical methods, far too wide to describe even in general terms in the brief space of this introduction. It will be sufficient to say that the object of the industry is to prepare substances with new properties out of raw materials, derived mainly from the extractive industries, by modifying their molecular structure. This special feature of the industry is important from the point of view of the conditions of employment, for it means that the human factor has a less direct influence on chemical than on mechanical operations. On the one hand the worker's functions are confined to those of transport, manipulation, and supervision, and on the other he can only modify the speed or duration of the operations to a very limited extent and by recourse to physical agents such as heat, pressure, electricity, etc.

Labour is therefore an unimportant factor in the chemical industry as compared with the mass and value of the products treated. While managers and foremen must be highly qualified and are in most cases strictly specialised, the great majority of the workers consists of unskilled labourers only, who are interchangeable and can even transfer very easily from one branch of industry to another.

Mechanisation, without having been carried equally far in every branch of the chemical industry, has profoundly modified the industry during the last sixty years. It was first introduced in the handling of the material. The circulation of the products inside the apparatus in which they are transformed is now effected mechanically in most cases, and hand labour has practically disappeared. Similarly there have been considerable changes in the transport arrangements inside the undertaking, especially since the war. The large quantities of material that are transported in certain chemical factories are moved by large-scale apparatus such as moving belts, Archimedes screws, aspirators, chutes, etc., which have nearly everywhere replaced tubs or trucks loaded and unloaded by hand. The actual work of supervision has been facilitated by the centralisation of control apparatus and the simplification of driving gear, and in some cases it has even been made altogether automatic. Many electric furnaces, for instance, have a device which automatically regulates the distance between the electrodes — a process that formerly required a worker's constant supervision.

Equipment is now turned to much better account owing to changes in the methods of manufacture or the shape of apparatus, and especially owing to the construction of much larger units. The result has been a decline in the amount of staff needed for carrying on the operations. At the same time the more general use of mechanical means of transport and, still more, the creation of new branches of the industry with complicated equipment (electro-chemical undertakings, workshops for catalysis under pressure) have provided employment for highly skilled workers who are responsible for the maintenance and repair of all these machines, although it must be admitted that they belong to occupations which, in a general way, do not come under the chemical industry. Finally, all the operations connected with the making-up and packing of small chemical products for druggists and photographers, cleaning and

polishing materials, perfumery, etc., require a considerable staff

It has been pointed out above that the direct intervention of human labour can have little influence on the progress of a chemical reaction. This means, among other things, that the chemical industry is one where continuous processes are very usual, or at least where the working day often exceeds what is generally accepted.

The extension of hours of work is due mainly to the following technical conditions. In the first place, many reactions take so long that they exceed the normal working day, and in the present state of chemical technique they cannot be accelerated. Further, heat is necessary for a very large number of operations, and the material cannot be allowed to cool down because this would clog all the containers and apparatus. Even apart from this major disadvantage, it is often out of the question to hold up an operation, because the cooling down of the apparatus and its re-heating the next morning would be far too costly to be acceptable. Finally, it often happens that if a chemical reaction is to be resumed or a particular temperature restored, it would take more than a day to set the process going again.

In the chemical industry the worker is often exposed to contact with irritant or poisonous solids, liquids or gases. In many cases he also has to suffer excessive heat. As the result of systematic campaigns, however, widespread use is now made of collective safeguards such as ventilators, or individual safeguards such as proofed footwear, gloves, respirators, etc. But progress has been most marked in consequence of the improvement in the technique of manufacture itself. For economic reasons, equipment that is in better condition and more hermetically sealed is more widely used. Further, the mechanisation of transport and handling very often spares the worker direct contact with the raw materials or the products given off by reactions.

* * *

It has been considered necessary to give the above brief account of the principal features of the chemical industry and

of its organisation of work because the contemplated regulations on hours of work in the industry cannot be drafted without due regard to the conditions described here

II. — NATIONAL HOURS OF WORK REGULATIONS SPECIAL TO THE CHEMICAL INDUSTRY

1. Nature of the Regulations

In the countries covered by this Report the regulations concerning hours of work in the chemical industry differ widely in nature. In all of them except Great Britain and the United States the chemical industry is subject to the general regulations on hours of work in industry, the principal provisions of which are summarised in an appended Report¹. Apart from, or in the absence of, any such general provisions on hours of work the chemical industry, or at least some of its branches, is subject in many countries to special provisions, which take the form of special legislation or are contained in collective agreements or special kinds of regulations for particular countries, such as collective rules in Germany, arbitration awards in Australia and New Zealand, standards of employment in Spain. The codes of fair competition in the United States also formed a special kind of regulations.

Since, however, the chemical industry forms a very complex aggregate, the nature of these provisions can be indicated only in outline. There can be no question of treating this industry as a whole, as has been done more or less completely in other reports on hours of work, such as those relating to the iron and steel industry and the textile industry. In the chemical industry the lack of homogeneity — due to the great variety of products manufactured, the diversity of technique, the specialisation and dispersion of the undertakings, the great inequalities in the size of undertakings, which range from very large factories to small laboratories — makes it impossible to do more than take samples and record the general tendencies of the regulations. In particular, there is no means of obtaining access to all the collective agreements in force in the various countries, and still less to the works rules of undertakings.

The special provisions limiting hours of work in the chemical industry or certain of its branches, or even only in certain

¹ See p. 7, footnote 1

kinds of work or operations, are reviewed below, country by country ¹

In *Argentina* the Act of 12 September 1929 concerning the 8-hour day ² applies to the chemical industry and in addition provides for shorter hours for certain unhealthy work. The kinds of work regarded as unhealthy are enumerated in the Decree of 11 March 1930 ³, and include several connected with the chemical industry.

In *Australia* each State has competence to regulate hours of work by law and there is no Federal legislation on the subject. The Commonwealth Court of Conciliation and Arbitration, however, has issued several Federal awards containing provisions on hours of work for various branches of the chemical industry. These provisions apply to all the States unless any particular State has already prescribed more favourable regulations.

The general legislation of the separate States fixes a 44-hour week in New South Wales ⁴ and Queensland ⁵ and a 48-hour week in the other States (only for women and children in Victoria ⁶ and South Australia ⁷). In addition, several of the States, such as New South Wales, Queensland and Victoria, have issued arbitration awards or decisions of the competent bodies applying to specified branches of the chemical industry throughout their territory or in particular districts.

In *Austria* the Administrative Regulations of 28 July 1920 ⁸, authorising exceptions to the Eight-Hour Day Act of 17 December 1919 ⁹ and amended by the Order of 4 December 1924 ¹⁰, contain special provisions for various forms of manufacture in the chemical industry. Further, the Orders of 8 March 1923 ¹¹ and 26 March 1934 ¹² concerning the protection of the life and health of persons occupied in certain undertakings,

¹ In the references given below, the abbreviation "L S" refers to the *Legislative Series*, published by the International Labour Office, and the abbreviation "B B" to the *Bulletin* of the former International Labour Office at Basle.

² L S 1929 — Arg 1, A

³ L S 1930 — Arg 1, A

⁴ L S 1932 — Austral 5

⁵ L S 1933 — Austral 1

⁶ L S 1929 — Austral 13

⁷ L S 1926 — Austral 1, App A

⁸ L S 1920 — Aus 12-15

⁹ *Ibid*

¹⁰ L S 1924 — Aus 3

¹¹ L S 1923 — Aus 1

¹² L S 1934 — Aus 6

fix special limits to hours of work in processes connected with the chemical industry which are deemed to be dangerous or unhealthy. There are in addition a number of collective agreements applying to the industry.

In *Belgium* the Royal Orders of 23 June 1924 ¹ and 29 April 1926 ² issued under the Act of 14 June 1921 concerning the 8-hour day and 48-hour week, established special regulations for certain chemical processes or kinds of manufacture

In addition the Royal Order of 28 February 1922 ³, amended by the Royal Order of 22 December 1927 ⁴ which enumerates the persons who are deemed to be employed in a confidential capacity and therefore excepted from the regulations concerning hours of work also includes various categories of persons employed in the chemical industry

It may be added that the Act of 9 July 1936 ⁵ provides for the possibility of gradually reducing hours of work to 40 in the week for workers employed in industries or branches of industry where the work is carried on in unhealthy, dangerous or exhausting conditions. So far the only application made of this Act has related to coal mining.

In *Czechoslovakia* the provisions of the Hours of Work Act of 19 December 1918 ⁶, which prescribes an 8-hour day and 48-hour week, serve as a basis for a collective agreement covering a large part of the chemical industry. The Order of 11 January 1919⁷, issued in pursuance of this Act, enumerates the undertakings in which continuous processes are carried on and special hours regulations therefore apply. Several of these undertakings belong to the chemical industry.

In *Egypt* the Legislative Decree of 5 December 1935 ⁸ limits the working day to 9 hours for certain processes and operations most of which belong to the chemical industry.

In *Estonia* hours of work throughout industry are governed by the Act of 10 July 1931 ⁹, which established an 8-hour day and 48-hour week.

¹ L. S. 1924 — Bel. 6, G.

² L. S. 1926 — Bel. 4 E.

³ L. S. 1923 — Bel. 2, App.

⁴ L. S. 1927 — Bel. 3.

⁵ L. S. 1936 — Bel. 11. See appended Report, p. 24, note (c).

⁶ B. B. Vol. XIV 1919, p. 26.

⁷ *Ibid.*, p. 31.

⁸ L. S. 1935 — Eg. 1.

⁹ L. S. 1931 — Est. 5.

In *France* hours of work in the chemical industries are governed by the Decree of 2 March 1937 ¹ fixing the methods of applying the Act of 21 June 1936 ² which introduced the 40-hour week in industrial and commercial undertakings. Electro-chemistry and electro-metallurgy are subject to the Decree of 27 October 1936 concerning hours of work in the metallurgical and metal-working industries ³. The gas industry and related industries will shortly be made subject to a special Decree.

Further, since the Act on collective labour agreements ⁴ was passed on 24 June 1936 a large number of regional or local collective agreements have been concluded for various branches of the chemical industry. As a rule these agreements do not touch on the question of hours and in this connection merely contain provisions on overtime pay.

In *Germany* the General Order of 26 July 1934 ⁵ concerning hours of work establishes the principles of the 8-hour day but allows exceptions, mainly where required by the nature of the work, to be prescribed either by collective rules or by decisions of the public authority. (1) if there are no collective rules, or (2) if the collective rules provide incompletely or not at all for the extension of hours or refer the matter to the decision of the public authority.

There are also a few legislative provisions concerning the reduction of hours for certain unhealthy kinds of work in the chemical industry, issued in application of the principle laid down in section 15 of the above-mentioned Order.

Lastly, hours of work are also regulated by a number of collective rules, the most important of these sets of rules corresponds to the former model national collective agreement, the last edition of which was apparently concluded on 15 October 1927.

In *Great Britain* the hours of work of adult male workers (except certain categories of miners and workers employed in automatic sheet-glass works) are not subject to statutory regulation. The Factory and Workshops Act, however, provides

¹ *Journal Officiel de la République Française*, 3 March 1937.

² L. S. 1936 — Fr. 8. See appended Report, p. 29, note (h).

³ *Journal Officiel de la République Française*, 28-29 and 31 October 1936.

⁴ L. S. 1936 — Fr. 7.

⁵ L. S. 1934 — Ger. 13.

for the possibility of limiting the period of employment in dangerous and unhealthy trades. For women and young persons hours are regulated by the Factory and Workshops Acts of 1901 and 1907 and by the Act of 1920 amended in 1936 ¹, concerning the employment of women young persons and children, and in mines by mining legislation.

The hours of labour of shift-workers in the heavy chemical industry are fixed by an agreement of June 1935 arrived at by the Chemical Trade Joint Industrial Council. This agreement reduced the week from 7 shifts to 6 shifts of 8 hours. The hours of workers other than shift workers are in accordance with an arrangement made between the employers and workers in 1919. In the drug and fine chemical industry the hours are fixed by an agreement of May 1933. A Joint Industrial Council agreement of February 1920 specified the hours in the manufacture of paint, colour and varnish in respect of which the agreed minimum rates of wages are payable, but provided that the agreement should not affect those firms where a shorter week was in operation. The hours in the manufacture of soap and candles are fixed by an agreement of the Joint Industrial Council of September 1926, since that date the hours have been reduced by certain large firms. In match manufacturing the hours are determined by a Joint Industrial Council agreement. The making of boot and floor polish is covered by the Trade Boards Acts, and an Order under those Acts specifies the hours of labour in respect of which statutory minimum rates of wages are payable.

Finally, in several undertakings agreements have been concluded or measures adopted with a view to reducing hours of work.

In *Greece* the Decree of 27 June 1932 consolidating and supplementing the provisions relating to the 8-hour day ² enumerates among the industries covered several branches of the chemical industry. Two Decrees of 9 July 1935 ³ and 14 August 1936 ⁴ extended these provisions to other kinds of manufacture, and to the chemical industry in general. Thus the whole of the chemical industry is now subject to the general hours of work regulations.

¹ See appended Report, p. 26, note (j)

² L. S. 1932 — Gr. 2

³ L. S. 1935 — Gr. 3

⁴ Cf. *Industrial and Labour Information*, Vol. LIX, No. 8, 24 August 1936, p. 237

In *India* hours of work are fixed at 54 in the week (60 for seasonal industries) by the Factories Act of 20 August 1934 ¹

In *Italy* hours of work in industry were reduced below the statutory limits of 8 in the day and 48 in the week, fixed by general legislation, as the result of an agreement concluded in October 1934 between the Fascist Confederation of Industrial Employers and the corresponding organisation of industrial workers. This agreement provided that special agreements should be concluded for each branch of industry, specifying the classes of workers in respect of whom the proposed reduction of hours was technically and economically possible. The national federations were also to fix the basic period for the calculation of average hours. It was agreed that overtime should normally be prohibited, but permitted in the exceptional cases specified in section 11 of the Legislative Decree of 15 March 1923, No. 692 ² (temporary exemptions granted by the Minister for certain industries) and in cases arising out of the special characteristics of each industry (urgent orders, urgent repairs, etc.). Special agreements were concluded in November and December 1934 for the chemical industry in general and various independent branches of the industry ³.

This first inter-confederal agreement expired on 16 April 1935 and was replaced by an agreement concluded on 23 June 1935 between the same central organisations, which again provided that the national federations concerned should fix the number of weeks over which hours of work should be averaged. It also stipulated that the national federations might (1) agree to exemptions under conditions more favourable to the workers than those provided by the legislation (nature of exceptions, number of extra hours allowed) in respect of preparatory and complementary work, intermittent work, technical and seasonal requirements, and cases of *force majeure*; (2) provide for the reduction of hours of work in classes of employment not covered by the statutory regulations, (3) conclude agreements to regulate conditions of employment where there is a shortage of skilled labour or where it is impossible for technical or economic reasons to apply shorter hours of

¹ L. S. 1934 — Ind. 2

² L. S. 1923 — It. 1

³ CONFEDERAZIONE FASCISTA DEI LAVORATORI DELL' INDUSTRIA
Il riassorbimento della disoccupazione in Italia, Series A No. 9. Rome
1935, pp. 85 *et seq.*

work, the class of workers concerned in the latter case being also determined by agreement.

In view of the fact that the provisions of the new inter-confederal agreement are substantially the same as those contained in the agreement which expired on 16 April 1935, the previous federal agreements remain in force as long as the federations concerned have not concluded new ones. Since the above new agreements were signed further collective agreements have been concluded for various branches of the chemical industry.

Finally, reference should be made to two Decrees both issued under the general Hours of Work Act which affect the chemical industry. The first, dated 10 September 1923¹, specifies the industries and processes in which the normal hours of work may be exceeded for technical or seasonal reasons and applies also to the chemical industry; and the second dated 6 December 1923², specifies the occupations which require only intermittent work or mere being in attendance or watching, to which the limitation of hours of work does not apply, and covers also persons employed in the chemical industry.

In Japan hours of work are limited by the Act of 29 March 1923³ to 11 in the day, including an hour's break for women and young persons under 16 years of age employed in factories regularly employing 10 or more persons or engaged in dangerous or unhealthy work. The Imperial Order of 5 June 1926⁴ contains a schedule of the occupations in question several of which belong to the chemical industry.

In the Netherlands the general legislation⁵ fixes hours of work at 48 in the week. The Order of 8 September 1936⁶ concerning hours of work in factories and workshops contains provisions concerning the distribution of hours of work, night work, and work in factories with continuous processes all of which apply to a certain number of specified chemical operations or processes. There are also collective agreements for particular branches of the chemical industry.

¹ L. S. 1923 — It. 7, C

² *Ibid*, It. 7 D.

³ L. S. 1923 — Jap. 1

⁴ L. S. 1926 — Jap. 1 B

⁵ L. S. 1924 — Neth. 5, 1930 — Neth. 2 1936 — Neth. 2

⁶ L. S. 1936 — Neth. 2

In *New Zealand* the Act of 8 June 1936¹ amending the Factory Act of 6 February 1922 established the 8-hour day and 40-hour week. On application made by any occupier of a factory, however, the Court of Arbitration may extend working hours beyond these limits for a specified period if it considers that it would be impracticable to carry on the work of the factory efficiently without the extension. In no case, however, may the working week exceed 44 hours.

In addition, there are arbitration awards which fix conditions of employment in various chemical industries for several districts. The hours of work provisions of these awards must be in conformity with the 1936 Act.

In *Norway* collective agreements for various branches of the industry regulate hours of work in conformity with the provisions of the Workers' Protection Act of 19 June 1936², which established the 48-hour week.

In the *Philippine Islands*, the Act of 9 December 1933, as amended by the Act of 26 August 1935³, limiting the hours of work of certain classes of labourers occupied in difficult, dangerous or unhealthful conditions to 8 per day, applies particularly to certain classes of workers in the chemical industry.

In *Poland*, under the Notification of 25 October 1933⁴, hours of work are fixed at 8 in the day and 48 in the week.

In *Rumania*, in addition to the general Hours of Work Act of 9 April 1928⁵ and the regulations for its administration issued on 30 January 1929⁶, which prescribe an 8-hour day and 48-hour week and provide for exemptions for certain categories of persons employed in positions of trust in the chemical industry, there are collective agreements applying to particular branches of the chemical industry.

In *Spain*, in addition to the general Act of July 1931⁷ prescribing a 48-hour week, hours of work in the various industries and occupations are regulated in conformity with the legis-

¹ L S 1936 — N Z 2

² L S 1936 — Nor 1

³ L S 1935 — Phil 1

⁴ L S 1933 — Pol 1

⁵ L S 1928 — Rum 1

⁶ L S 1929 — Rum 1

⁷ L S 1931 — Sp 9

lation by means of "standards of employment" Such standards exist for certain branches of the chemical industry¹.

In *Sweden* there are a large number of collective agreements for the various branches of the chemical industry, which are based on the provisions of the general Hours of Work Act of 16 May 1930² establishing an 8-hour day and 48-hour week

In *Switzerland* the Order of 3 October 1919 concerning the administration of the Federal Factory Act³ establishing the 48-hour week, amended by the Order of the Federal Council of 7 September 1923⁴, enumerates certain operations and processes in the chemical industry for which night work and Sunday work (continuous operations) are authorised

For the *United States* it is difficult at the present time to give any clear account of the hours regulations in force in the chemical industry The statutory limitation of hours of work is left to the separate States and most of the laws in question fix the hours of women and young persons The regulation of the hours of adult men has not been carried as far: provision is usually made for a 48-hour week and sometimes more

To meet the effects of the depression Congress had adopted the National Industrial Recovery Act which was signed by the President on 16 June 1933 The object of this Act was to set up the necessary machinery for a vast scheme to provide for the re-employment of workers, the reduction of hours of work the payment of fair wages for the working hours thus reduced and the prevention of disastrous competition and over-production For each industry a code of fair competition was to be adopted embodying these provisions For the chemical industry one general code was approved together with some thirty other codes concerning the manufacture of specified products ordinarily regarded as chemical products

As a result of the decision issued by the Supreme Court on 27 May 1935⁵, ruling that the National Industrial Recovery Act was unconstitutional and of the subsequent repeal of all the provisions empowering the President to approve codes and

¹ Cf GONZALES ROTHVOSS *Anuario español de política social* Madrid, 1934-1935

² L S 1930 — Swe 1

³ B B Vol XIV, 1919, p 215

⁴ L S 1923 — Switz 3

⁵ A L A Schechter Poultry Corporation v U S decided 27 May 1935 55 S Ct 837

providing for their application, breaches of the code provisions are now no longer punishable by law and observance of the codes has thus ceased to be compulsory¹ Although the provisions of the codes concerning hours of work have been maintained — to a very varying extent — in a certain number of undertakings by the decision of the employers or in consequence of agreements, their value is no longer more than retrospective, and if they are mentioned here it is only by way of illustration. A certain number of collective agreements have since been concluded for a few chemical undertakings.

In the *U S S R*, where the working day is fixed at 7 hours by the Order of 2 January 1929, amended by that of 22 February 1929², the Labour Code³ provides that a shorter working day must be introduced for workers employed on specially strenuous or unhealthy work. The Commissariat of Labour published on 10 November 1928⁴ a list of the occupations to be covered by this provision, which was amended by an Order of 25 May 1929. The list includes several occupations in the chemical industry.

In *Yugoslavia* hours of work are fixed at 8 in the day and 48 in the week by the Act of 28 February 1922⁵.

2. Scope of the Regulations

The scope of the special regulations or provisions sometimes comprises all the branches of the chemical industry, sometimes only certain branches or even processes or kinds of work or manufacture. In both cases the regulations may either be national or apply only to certain regions.

In the following pages the scope of the special regulations is considered, first as to the undertakings, and secondly as to the classes of workers covered.

A — UNDERTAKINGS COVERED

The various special regulations examined do not always speak of undertakings but refer rather to industries, operations, or kinds of manufacture. In these latter cases it should be

¹ Public Resolution No. 26, 74th Congress, appeal 14 June 1935

² L. S. 1929 — Russ. 3, A

³ L. S. 1922 — Russ. 1

⁴ *Izvestia*, No. 51-52, 1928

⁵ L. S. 1922 — S. C. S. 1

understood once and for all that the information given below applies to the undertakings or branches of undertakings engaging in such industries, operations, or kinds of manufacture.

In *Argentina* the special provision concerning the reduction of hours of work in places deemed to be unhealthy applies to places where the following processes are carried on :

Manufacture of white lead, red lead or other poisonous pigments, and handling of paints, enamels or varnishes containing salts of lead or arsenic ,

Manufacture of litharge, red lead, massicot, white lead, and oxide of lead ,

Manufacture of oil varnishes carbon disulphide, sulphuric and acetic ether, collodion and its derivatives, sulphuric, picric, oxalic, and salicylic acids murexide or purpurate of ammonium, chlorine, chloride of lime or hypochlorite of lime, nitric or azotic acid, and chromates .

Distillation of corrosive sublimate and calomel, fulminate of mercury ,

Manufacture of perfumes from nitro-derivatives ,

Manufacture of zinc white ,

Pulverisation of copper ore and treatment thereof with acids ;

Manufacture of arsenic compounds, sodium salts, potassium cyanide and its salts, potassium and its salts and celluloid ;

Distillation of tar products (paraffin, creosote, carbolic acid)

In *Australia* the Federal awards relating to the chemical industry apply to the artificial fertilisers' industry ¹, glue and gelatine workers ², and the rubber industry ³.

In New South Wales there are arbitration awards for fertiliser manufacturing ⁴, bone milling and manure making ⁵, paint, varnish, etc , making ⁶, drug factories ⁷, chemical workers ⁸.

¹ Arbitration award of 10 March 1932 Cf *Commonwealth Arbitration Reports*, 1932, Vol. 31, p 67

² Arbitration award of 15 June 1934 (No. 168 of 1934), amended on 21 December 1934 (No 247 of 1934) and 9 March 1935 (No 11 of 1935).

³ Arbitration award of 23 September 1932, amended on 26 February 1934 Cf *Commonwealth Arbitration Reports*, 1932, Vol 31, p 593, and *Industrial and Labour Information*, 25 June 1934, Vol L, No 13, p 458

⁴ Agreement of 13 April 1926 Cf *New South Wales Industrial Gazette*, Vol XXIX, p 684 Award of 13 December 1933 *Idem*, Vol. XLV, p 128

⁵ Arbitration award of 27 November 1928 *Idem*, Vol XXXV, p 103

⁶ Arbitration award of 29 September 1926 *Idem*, Vol. XXX, p 872

⁷ Arbitration award of 11 August 1927 *Idem*, Vol. XXXII, p 645

⁸ Arbitration award of 18 October 1927 *Idem*, Vol XXXIII, p 1117

linoleum factories¹, margarine making² soap and candle makers³, and in Queensland for fertiliser manufacturing⁴, soap and candle making⁵, margarine manufacture⁶, rubber workers⁷, and distilleries⁸. In Victoria the competent authorities have issued decisions for animal manure manufacture, artificial manure making, manufacturing chemists, glue and gelatine manufacture, the making of soap, soda, candles, polishes, etc., and the rubber trade⁹.

In *Austria* the special provisions on hours of work relate to cellulose factories and to the manufacture of oxygen and other compressed gases and alcohol, the provisions fixing shorter hours of work relate to certain operations in undertakings for the manufacture of lead compounds, alloys and articles made of lead, and to operations in undertakings producing or utilising benzol, toluene, xylene, trichlorethylene, tetrachlorethane, tetrachloride of carbon or carbon disulphide. Among the collective agreements one covers the whole of the chemical industry¹⁰ and another the rubber industry¹¹.

In *Belgium* special hours of work regulations were introduced by the Decree of 23 June 1924 for the following industries, branches of industry, or operations

Manufacture of artificial slates,

Manufacture of varnish (for the workers employed in boiling gums and finishing varnishes),

¹ Arbitration award of 26 June 1933, amended on 24 April 1935
Idem, Vols XLIV, p 208, and XLVII, p 1577

² Arbitration award of 15 December 1933 *Idem*, Vol XLV, p 118

³ Arbitration award of 15 December 1933 *Idem*, Vol XLV, p 121

⁴ Arbitration awards of 16 November 1926, 5 September 1934, and 6 November 1934 Cf *Queensland Industrial Gazette*, Vols XII, p 26, and XIX, pp 230 and 427

⁵ Arbitration award of 5 September 1928 *Idem*, Vol XIII, p 620

⁶ Arbitration award of 21 May 1934 *Idem*, Vol XIX, p 59

⁷ Arbitration awards of 16 November 1925, amended on 9 December 1925 and of 6 November 1934 *Idem*, Vols XI, pp 76 and 77, and XIX, p 449

⁸ Arbitration awards of 11 June 1929 *Idem*, Vol X, p 531

⁹ Cf *Summary of Wages and Conditions Fixed by Wages Boards or by Court of Industrial Appeals*, 1 January 1937, pp 167, 168, 51, 133, 134 and 231

¹⁰ General collective agreement of 23 June 1933, concluded between the Central Federation for the Austrian Chemical and Metallurgical Industry and the Austrian Federation of Chemical Workers

¹¹ Collective agreement of 17 May 1933, amended on 19 June 1933, concluded between the Vienna Federation of Manufacturers and the Austrian Federation of Chemical Workers

Manufacture of gum, gelatine, and bone glue (for the workers employed in emptying the moulds, cutting, placing on sieves, and carrying to the gelatine drying rooms),
Vulcanisation of rubber goods (for the workers employed in vulcanising),
Electro-plating (for the workers employed in connection with the electrolytic baths),
Manufacture of artificial silk by the collodion process (for workers employed in demitrifying, bleaching, and drying),
Glazing of powders,
Manufacture of photographic requisites (for workers employed in cutting and drying photographic plates, films, and papers and in treating them with barytes)

The manufacture of artificial wool is subject to special regulations under the Royal Order of 29 April 1926

In *Czechoslovakia* the legislation concerning continuous processes applies in particular to the following undertakings and kinds of manufacture the manufacture of carbon electrodes and other articles made from plastic carbon, the manufacture of wood fibre and cellulose, spirit distilleries and refineries and yeast works, starch works the manufacture of chemical products, the manufacture of fats, petroleum refineries and kerosene works. A collective agreement applies to a large part of the chemical industry¹ Separate agreements have reduced hours of work in spirit distilleries and refineries

In *Egypt* the provisions of the Act limiting hours of work apply in particular to the manufacture of explosives, lead content substances, asphalt, and organic manure

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries defines the scope of the regulations by referring to certain industrial sub-groups in the list of industries and occupations used for the general statistics of France as laid down in the Decree of 9 April 1936 ²

The principal industries covered are the following
Manufacture of starch, potato-flour, etc

Manufacture of starch, potato-flour glucose, of dextrin and other vegetable glues, of paste, size, and dressing

¹ Collective agreement of 15 July 1925, concluded between the Association of Chemical Industries at Usti-Nad-Laban and the International Federation of Chemical Workers in Czechoslovakia, Usti-Nad-Laban section

² *Journal Officiel de la Republique Francaise*, 7 May 1936

Manufacture of pharmaceutical products

Manufacture of vegetable oils, candles, perfumery, etc

Manufacture, clarification and refining of vegetable oils, grinding of oil-cake,

Manufacture of stearine tallow melting and refining, stearine manufacture, wax melting and bleaching, manufacture of candles and tapers,

Manufacture of soap, manufacture and refining of glycerine,

Perfumery preparation of natural perfumes, manufacture of artificial perfumes, preparation of perfumed products

Manufacture of animal oils and fats, glue, and fertilisers

Manufacture of animal oils and fats, gut-works,

Manufacture of glues of animal origin, manufacture of gelatine,

Manufacture of albumen, drying of blood,

Manufacture of animal charcoal,

Sewage removal, sewage-powder manufacture, sewage, oil, and house-refuse dressing, house-refuse incineration,

Fertilisers manufacture of artificial manure of animal or vegetable origin, of chemical manure, including the preparation of mineral superphosphates and phosphatic fertilisers

Manufacture of acids, salts, and sundry products

Manufacture of sulphuric acid, nitric acid, hydrochloric acid, and various mineral acids,

Manufacture of chlorine, chloride of lime, and other chlorides,

Preparation of caustic soda, sodium carbonate, and other sodium salts,

Manufacture of potash and potassium salts, of iodine, iodides, bromine and bromides,

Manufacture of ammonia and ammonium salts,

Manufacture of cyanides,

Refining of sulphur and manufacture of sulphur products, manufacture of arsenic and arsenical products,

Manufacture of carbon disulphide,

Manufacture of boric acid,

Manufacture of alum,

Manufacture of barium and strontium salts,

Manufacture of silicates, of fluorides, of hydrofluoric acid, of talc,

Manufacture of tartaric acid and tartrates,

Manufacture of various organic compounds oxalic acid, potassium oxalate, lactic acid, butyric acid, citric acid, benzoic acid, saccharic acid, manufacture of alcohol derivatives, manufacture of ethers,

Manufacture of various metallic salts and inorganic compounds,

Manufacture of salts and mantles for incandescent lights, of salts of rare metals, of ferrocerium,

Manufacture of photographic products,

Chemical research laboratories,

Manufacture of antiseptics, disinfectants, clarifiers, boiler-cleaning composition, scale-removers fluxes mordants, insecticides, metal-tempering powder, of fire-extinguishing products and appliances, of oenological products

Manufacture of explosives, etc

Manufacture of explosives,

Manufacture of phosphorus and phosphorus salts,

Manufacture of matches and fire-lighters

Distillation of coal, oil, resin, wood, etc

Coke ovens manufacture of coke, of acetylene and similar gases, of compressed and liquefied gases,

Manufacture of patent fuel,

Coal tar, mineral oil manufacture, distillation, and refining of coal tar, manufacture of coal-tar derivatives, refining of petroleum and manufacture of by-products of petroleum, distillation of shale, manufacture of asphalt and bitumen,

Resins manufacture of resin, resinous products, turpentine, sealing wax, refining of camphor,

Wood distillation of wood, charcoal-burning, and manufacture of by-products of wood (wood tar, wood vinegar, methyl alcohol, acetic acid and acetates, acetone, creosote, guaiacol),

Tanning extracts

Manufacture of dyestuffs, inks, varnishes, etc

Dyestuffs manufacture of natural dyestuffs of animal and vegetable origin, of artificial dyestuffs,

Paints manufacture of mineral dyestuffs, black pigments, whitening, white lead, zinc white, paints, and bronze paint,

Manufacture of pencils, inks, varnishes, and lacquers,

Manufacture of blacking, polishes, and products for cleaning,

Manufacture of putty, plastic clay, and products for grafting

Manufacture of rubber and rubber substitutes

Manufacture of rubber and gutta-percha, and of articles of rubber and gutta-percha, including solid and pneumatic rubber tyres,

Manufacture of rubber cloth, clothing, and footwear

Manufacture of celluloid, viscose, and plastic substances (bakelite, synthetic resins), of linoleum

The Decree further lays down that its provisions shall apply to

Undertakings where bakelite, synthetic resins, aceto-cellulose, viscose and other plastic substances are worked up, except factories making insulating material and artificial silk spinning mills (these last are covered by the Decree of 17 November 1936 fixing the methods of applying the 40-hour week in the textile industry),

Oil stores and depots, even separate from refineries, except retail establishments,

Laboratories for chemical, micrographical, and microbiological analysis working on commercial lines and not attached to undertakings where other industrial or commercial businesses are carried on,

Undertakings for the sorting, washing, crushing, grinding, screening, etc, of coal and graphite

The provisions of the Decree do not apply, however, to the workshops, yards, shops, warehouses, and offices of under-

takings engaged in handling merchandise in ports and operating there as branches of coal undertakings, for they come under the Decree relating to undertakings engaged in handling merchandise in ports accessible or not accessible to ocean-going vessels

Finally, the provisions of the Decree are applicable to workshops, yards, warehouses, offices, and head offices of the undertakings which are enumerated above, even if not attached to the premises where the industries indicated are carried on, and which are engaged solely in promoting the working and maintenance of these undertakings and their branches

In *Germany* the legislation concerning the reduction of hours of work in unhealthy or dangerous operations applies to establishments or branches of industry engaging in the manufacture of lead paints and other lead compounds ¹, the manufacture, packing and storage of Thomas meal ², and the vulcanisation of rubber goods ³

The national model collective rules for the chemical industry apply to the whole industry but do not define it. In addition there are special collective rules for certain branches of the industry which are regarded as independent, such as the soap industry ⁴

In *Great Britain* there are separate agreements between organisations of employers and workpeople relating to hours of labour in heavy chemical manufacture, drug and fine chemical manufacture, paint, colour and varnish manufacture, soap and candle manufacture, and match manufacture, while the making of boot and floor polish is covered by the provisions of the Trade Boards Acts

In *Greece* the legislation on the 8-hour day applies to the whole of the chemical industry

In *Italy* special agreements for the application of the 40-hour week apply to the chemical industry in general, the manufacture of artificial textile fibres, the rubber and plastic products industry, and olive oil refineries. National collective agreements concluded prior to the above agreements apply to the chemical

¹ Order of 27 January 1920

² Orders of 30 January and 30 September 1931

³ Notification of 1 March 1902

⁴ Cf. *Reichsarbeitsblatt*, Vol VI, No 18, 1935, p 442

industry in general ¹ and the manufacture of chemical products for agriculture ² Among those concluded since, mention may be made of the agreements for the oil industry ³

The agreements for the chemical industry in general and for olive-oil refining do not apply to undertakings employing less than five workers In calculating the number of workers no account is taken of foremen and persons who, owing to their special duties, cannot be replaced without harming the normal working of the undertaking The agreement for the chemical industry in general also excludes undertakings or branches of undertakings where the work done is placed in a reserved class because of its importance to national defence

The Royal Decree of 10 September 1923 and supplementary decrees contain special exceptions for the superphosphates industry, the manufacture of glue of animal origin, and certain electro-chemical undertakings

In *Japan* the Factory Act applies to undertakings where the following operations, deemed to be of a dangerous nature or injurious to health, are carried on and which may be considered as coming under the chemical industry in general

Manufacture of poisonous substances or medicines,
Manufacture of paints, pigments for toilet use or printing inks and colours,
Industries using sulphurous anhydride, chlorine or hydrogen,
Refining of sulphur,
Manufacture of rubber substitutes,
Refining of fatty oils,
Preparation of boiled oil,
Manufacture of artificial leather, paper and waterproof materials if use is made of a siccative oil or a solvent,
Manufacture of rubber goods with the help of a solvent,
Vulcanising of rubber goods when a solvent or rubber cement is used,
Extraction of resin or oils with the help of a solvent,
Manufacture of hair-oil with the help of a solvent,
Manufacture of artificial pearls with the help of a solvent,
Manufacture of adhesive plasters with the help of a solvent,

¹ National collective labour agreement of 22 March 1928 for workers in the chemical industry, concluded between the National Fascist Federation of Chemical and Similar Industries and the National Federation of Fascist Industrial Workers' Unions

² National collective labour agreement of 23 March 1932 for workers in the industry making chemical products for agriculture concluded between the National Fascist Federation for the Manufacture of Chemical Products for Agriculture and the National Federation of Fascist Industrial Workers' Unions

³ *Il Lavoro Fascista*, 13 March 1937.

Manufacture of tannic acid ,
Manufacture of compound dyestuffs or of intermediates ,
Manufacture of celluloid, or of celluloid articles made by heating
or by using a sawing machine ,
Manufacture of gun cotton ,
Manufacture of ether ,
Manufacture or denaturing of alcohol ,
Manufacture of viscose ,
Distilling or rectifying of turpentine ,
Distilling, refining or canning of mineral oils ,
Refining of asphalt ,
Making of tar felt or tar paper ,
Manufacture of matches ,
Manufacture or handling of gunpowder, explosives, fuses, car-
tridges or fireworks ,
Manufacture of compressed or liquefied gases ,
Preparation of carbon for electrical apparatus ,
Manufacture of calcium carbide ,
Making of animal charcoal or dried blood ,
Manufacture of glue

In the *Netherlands* the legislation contains provisions with regard to the two-shift system which apply to creosoting and cyanising works, moulded candle factories, celluloid factories, artificial fertiliser grinding works, artificial silk factories, linoleum factories, rubber factories, nitrogen compound factories, and soap factories

Several provisions concerning undertakings working continuously day and night apply to specified chemical industries or operations, namely

1 The provisions establishing exceptions for certain workers employed at night in soap factories in connection with the splitting of oil and fat, and on stoking in lacquer, varnish and drying oil factories

2 The provisions concerning work carried on continuously day and night except on Sunday, in

Superphosphate, soda, potash, refined potash, nitrate of potash, magnesia, waterglass, tar, chrome compounds, dyestuffs and intermediates, acetyl cellulose, ether, acetone, ultramarine, and zinc white factories ,

Petroleum and paraffin refineries except the working up of refined paraffin) ,

Stearine candle factories (so far as is necessary for the continuous chemical process and the steam distillation of glycerine solutions) ,

Extract factories ,

Factories of essential oils, essences, and synthetic and extracted perfumes ,

Oil-crushing establishments, oil factories and cattlecake factories ,

Nitrogen, oxygen, hydrogen, and dissolved acetylene factories:
Acetate of lead factories:
White-lead factories 'in connection with the chambers, ;
Acetic acid factories:
Saccharine factories:
Celluloid factories;
Soap factories;
Cocaine and quinine factories:
Refineries of natural asphalt:
Artificial resin factories 'except the finishing and solidified products, ;
Artificial silk factories 'except mechanical work :
Lino-leum factories 'except hand printing,
Potato-flour, dextrine, syrup and glucose factories:
Starch, sago and maize-meal factories:
Margarine factories:
Brandy distilleries, malt spirit factories ;
Salt boiling and refining establishments.

3. The provisions concerning continuous employment including Sundays :

- (a) With hours averaging 14½ over three consecutive weeks, in chloride of lime factories, the oil-drying departments of lino-leum factories, artificial silk factories, preparation of viscose and preparation and manipulation of the spinning solution, and cellophane factories:
- (b) With hours averaging 15½ over three consecutive weeks, in artificial silk factories 'except the mechanical working up of artificial silk and the processes mentioned under 'a. and incandescent lamp factories in the preparation of mantles:
- (c) With hours averaging 16½ over three consecutive weeks, in sulphuric acid factories, hydrochloric acid factories, nitric acid factories, bone black and vegetable and animal charcoal factories, nitrogen and ammonia-compound factories not forming part of a gasworks, coal-tar distilleries, aniline and aniline compound factories, glue and gelatine factories, oil and glycerine refineries, oil and fat hardening establishments, benzine distilleries, formic and oxalic acid factories, lactic acid factories, wet-grinding departments of ultramarine factories, work in connection with the manufacture of electrolytic chlorine and alkalis, carbonic acid factories.

Among collective agreements examined, reference may be made to those relating to the manufacture of dextrin (starch gum) and cachets (wafer capsules).

In *New Zealand* there are arbitration awards for chemical manure workers¹, manure, tallow, acid soap and candle workers², and match workers³

In *Norway* the collective agreements examined apply to the various branches of the chemical industry carried on in the country

In the *Philippine Islands* the Act regulating hours of work applies in particular to workers occupied in the production of explosives

In *Rumania* the collective agreements examined relate chiefly to petroleum refining, match manufacture and wood distillation. Most of them apply to particular undertakings

In *Spain* the two national standards of employment concerning the chemical industry relate to the match industry and the petroleum industry respectively. The provincial standards of employment relate to the following industries: the chemical industry in general (provinces of Almería, Ciudad Real, Murcia, Navarra, Salamanca); chemical fertilisers (provinces of Biscay, Coruña, Madrid), soap (province of Córdoba), perfumery and soap (province of Madrid), lye (province of Saragossa); carbides (province of Coruña); alcohol, rubber, carbon dioxide and sulphur dioxide, drugs (province of Madrid)

In *Sweden* the collective agreements examined relate to the various branches of the chemical industry carried on in the country.

In *Switzerland* night work and Sunday work which mean that the processes have to be carried on continuously through-

¹ Arbitration awards of 22 October 1929, 26 April 1928, 1 July 1930, and 13 February 1931. Cf. *Awards, Recommendations, Agreements, Orders etc., made under the Industrial Conciliation and Arbitration Act the Apprentices' Act and the Labour Disputes Investigations Act*, Vols XXV A, p. 974; XXVIII p. 299, XXX, p. 705; and XXXI p. 1

² Arbitration awards of 22 October 1929 and 1 July 1930. *Idem* Vols XXV A p. 974, and XXX, p. 705

³ Arbitration award of 10 August 1926. *Idem*, Vol. XXVI, p. 715

out the week, are recognised by the legislation as an absolute necessity in the following industries

Manufacture of alcohol (part-time night work and Sunday work for the supervision of apparatus),
Electro-chemistry (work connected with electric furnaces and the electrolytic manufacture of chlorine gas, salts and metals),
Manufacture of cyanamide (work connected with electric furnaces, the liquefaction of air, the crushing of calcium carbide, the nitrifying furnace, the crushing, grinding and packing of cyanamide),
Manufacture of sulphuric and hydrochloric acids,
Manufacture of nitric acid (the electric process),
Manufacture of water-glass;
Manufacture of soda and caustic alkalis,
Manufacture of chromium salts (work connected with calcining),
Manufacture of white lead (in oxidation chambers and drying rooms),
Manufacture of red lead,
Manufacture of carbons for arc lamps and electrodes (carbonising work),
Salt works (boiling and drying)

In the *United States* the codes of fair competition included one for the chemical manufacturing industry, covering the manufacture of "heavy, industrial, and fine chemicals and their by-products" Supplementary codes were established for three branches of the industry, namely the carbon dioxide industry, the agricultural insecticide and fungicide industry, and the industrial alcohol industry In addition special codes were also established for a certain number of industries ordinarily or frequently regarded as branches of the chemical industry, but in the United States apparently held to form independent industries

Asphalt shingle and roofing manufacture,
Petroleum,
Photographic manufacturing,
Linoleum and felt base manufacturers,
Plumbago crucible,
Fertiliser,
Paint, varnish and lacquer manufacturing,
Asbestos,
Soap and glycerine manufacturing,
Buffing and polishing composition,
Liquefied gas,
Hardwood distillation,
Oxy-acetylene,
Shoe and leather finish, polish, and cement manufacture,
Furniture and floor wax and polish,
Witch hazel,
Carbon black manufacturing,

Lye,
Candle manufacturing industry and the beeswax and bleachers' refiners,
Printing ink manufacturing,
Perfume, cosmetic and other toilet preparations,
Tanning extract,
Insecticide and disinfectant manufacturing,
Dry colour,
Water-proofing, damp proofing, caulking compounds and concrete floor treatments manufacturing,
Pyrotechnic manufacturing,
Sulphonated oil manufacturing,
Rubber,
Rayon,
Matches,
Pencils

Finally, it should be mentioned that during the administration of the general code for the chemical manufacturing industry, eighteen branches of the industry, e.g. those for borax and potash, plastic fabricators, isinglass, explosives, nitrogen, pearl essence, pinewood distillation, dyewood extracts, cast phenolic resin manufacturing, etc., asked to be placed under supplementary codes. Codes were not established for them either because the requests were withdrawn or because the industries were held to come under the general code for the chemical manufacturing industry.

Among the local collective agreements in force mention may be made of those for undertakings engaging in the manufacturing of chemical products in general, fertilisers, and matches, and for the rubber and oil industries.

In the *U S S R* the legislation concerning hours of work for certain operations deemed to be strenuous or unhealthy covers the following chemical industries: the production of nitric, hydrochloric, and sulphuric acids, chlorine (liquid and gas), chromium salts, arsenic and its compounds, nitrites, lead salts, caustic alkalis, malt, explosives, drugs (sublimite, calomel, arsenic compounds), soap, mineral oils, perfumes, aniline dyes, mineral paints (white lead, paints containing copper, litharge or red lead), rubber, lead pencils.

* * *

The above survey shows that there is only one country with statutory regulation of hours of work for the chemical industry as such and containing all the provisions necessitated

by such regulation (France). The other statutory regulations for the chemical industry merely contain special provisions for certain kinds of work or operations requiring special hours of work regulations (Belgium), or for continuous processes (Czechoslovakia, Netherlands Switzerland), unhealthy work (Argentina Austria, Germany, U S S.R.) or night work (Netherlands, Switzerland), or various other exemptions or exceptions (Austria, Belgium, Italy Rumania, etc.). In all these cases the regulations define in detail the kinds of work or operations involved

The scope of the other methods of regulation varies widely as regards both the industries covered and the areas in which they apply. It should be noted, however, that the few collective agreements for the chemical industry as a whole do not state what is meant by the industry.

B. — CLASSES OF PERSONS COVERED

For the chemical industry, as for other industries the legislation on hours of work provides for exceptions for persons in positions of management, supervision or trust and sometimes for persons with special technical qualifications. The *Belgian* and *Rumanian* legislation treats head chemists directors of laboratories, and their assistants among others as persons in positions of trust and therefore excepts them from the regulations on hours of work

In *Germany* chemists engineers, physicians employees with a complete higher technical or scientific education and other similar employees in the chemical industry are subject to special regulations which do not prescribe their hours of work this matter being left to local regulations

In *Italy* the list of persons to whom the statutory limitation of hours of work does not apply in view of the fact that their occupations require only intermittent work or mere being in attendance or watching includes in particular in addition to the general categories of workers such as caretakers watchmen, door-keepers, carters stablemen etc the persons responsible

for the supervision and working of vacuum-producing apparatus, filters, distilling apparatus, oxidising, reduction and calcining furnaces (subject to certain conditions), sulphuric and nitric acid plant, apparatus for the electrolysis of water, apparatus for the compression and liquefaction of gases, and apparatus for the rapid cooling of soap

The agreement on the 40-hour week in the chemical industry in general does not apply to workers employed on dangerous work who need to have a full knowledge of the processes and material used

The agreement on the 40-hour week for the artificial textile fibre industry does not apply to workers whose occupations are intermittent or involve mere attendance, foremen, charge hands, workers responsible for the internal transport services, or workers who engage in work requiring a long apprenticeship or special technical conditions, provided that there are no persons available with the necessary qualifications for the work in question

The agreement on the 40-hour week for the rubber industry provides that the reduction of hours shall apply to 60 per cent of the staff in undertakings employing over 500 workers and 50 per cent in those employing not more than 500 workers. Further, the reduction is allowed only if for a particular operation there are at least five workers engaged on the same job

In *Spain* the national standards of employment for the petroleum industry exclude heads of services, foremen, caretakers and door-keepers who are housed free of charge on the premises of the undertaking itself, and touring-car chauffeurs

In the *United States* the code for the chemical manufacturing industry stipulated that the limitation on hours of work should not apply to persons employed in an executive, administrative, supervisory and/or technical capacity (excluding skilled operating labour and non-professionally trained laboratory workers), or persons employed as outside salesmen. The other codes for particular chemical products contained similar exceptions

Finally it should be noted that in a general way, for certain work subject to special provisions continuous processes, and dangerous and unhealthy work, only the workers employed on such operations are covered and not all the workers in the

undertaking or part of an undertaking in which the operations are carried on

3. Definition of Hours of Work

None of the regulations special to the chemical industry contains a full and exact definition of hours of work, but some of them deal with rest periods during work, the cleaning of machinery and premises after work, and the time spent by the workers on changing their clothes and washing

In *Australia* the Federal award for the rubber industry provides that on shift operations other than continuous shift operations a meal period of not less than 20 minutes shall be allowed, which shall count as time worked

In New South Wales, in the paint and varnish industry, workers working three shifts are allowed a break of 20 minutes for a meal. Under the award for this industry, as also under those for chemical workers and linoleum workers, periods of 5 to 30 minutes, included in working time, are allowed for the purpose of washing and of changing clothes

In *Queensland*, in certain fertiliser factories, the workers are allowed 10 minutes off both morning and afternoon, to smoke

In *Austria* the general collective agreement for the chemical industry provides that each worker must be allowed sufficient time before his work ends to clean the machinery and premises

In *Czechoslovakia* the collective agreement for the chemical industry provides that any cleaning of machinery and premises ordered by the management must be carried out during normal working time. The worker's changing of clothes and personal toilet must take place after the signal to leave has been given, but workers employed on particularly dirty operations are allowed a specified period to wash and take a bath, this period being fixed by the management of the undertaking in agreement with the workers

In *Germany*, according to the basic collective rules for the chemical industry, the workers are allowed no time to wash. If, however, in exceptional cases of particularly dirty work it is

necessary for reasons of health, for instance, that the workers should wash after stopping work, the management of the undertaking, in agreement with the district organisations, may allow the workers sufficient time to wash, which is included in working time and paid for as such

In *Japan* the hours of work include rest periods varying from 30 minutes to 1 hour

In *New Zealand* some arbitration awards provide for an interval of 10 minutes both morning and afternoon for smoking, in the case of certain operations

4. Limits of Regulation Normal Hours of Work

In view of the technical requirements and characteristics of employment in the chemical industry the limits of hours of work may vary according as the work is non-continuous and carried out by one or two shifts, or is continuous but stops on Sundays, or is continued also on Sundays, or is carried out under unhealthy conditions

A — NON-CONTINUOUS OPERATIONS

Whether non-continuous operations are carried out by a single shift, as is most often the case, or by two shifts, the hours of work prescribed for such operations by the regulations special to the chemical industry are given in the table overleaf

Country	Nature of regulations	Scope	Normal hours	
			Per day	Per week
Australia . .	Arbitration awards	Glue and gelatine workers; rubber industry Artificial fertilisers industry	— 8	44 48
New South Wales	"	Fertiliser manufacture, bone milling and manure making; paint, varnish, etc., fac- tories, drug factories, chemical workers; linoleum workers; margarine makers; soap and candle makers	—	44
Queensland .	"	Fertiliser manufacture, soap and candle makers, margarine manufacture, rubber workers, distilleries	—	44
Victoria	Wage board deter- minations	Manufacturing chemists, rubber industry Animal manure manufacture; artificial ma- nure making, glue and gelatine manu- facture, manufacture of soap, soda, candles, polishes, etc.	—	44 48
Austria	Collective agree- ments	Chemical industry; rubber industry	—	18
Belgium	Works rules	Soap (one undertaking)	—	43
Czechoslovakia	Collective agree- ments	Chemical industry Alcohol distilling and refining	— —	48 40
France	Legislation	Chemical industry	—	40 (in some in- dustries, 80 in 2 weeks)
Germany . . .	Collective rules	Chemical industry Soap industry	8 —	96 in 2 weeks
Great Britain . .	Collective Agree- ments Agreements of Joint Industrial Council	Heavy chemical industry Drug and fine chemicals Paint, colour and varnish Soap and candle Match making	— — — — —	47 48 47 48 47

Country	Nature of regulations	Scope	Normal hours	
			Per day	Per week
Sweden	Collective agreements	Various chemical industries	Usually 8½ from Monday to Friday, 5½ on Saturday	48
United States	Collective agreements	Manufacture of various chemical products (1 firm) Oil industry (4 firms) ¹	—	40
	Collective agreements	Match manufacture (4 firms) Chemical manufacturing industry	16 in any 2 days	40, 72 in any 2 weeks
	Collective agreements Codes of fair competition	Particular branches of the chemical industry	—	40 Average over 4 months, maximum 48 Usually 40, with various methods of averaging and distribution
Yugoslavia	Works rules	Various chemical industries Match manufacture (1 factory) Manufacture of chemical products (1 works)	Usually 8 — —	Usually 18 40 44

¹ The code of fair competition for the oil industry provided for the same hours

In the light of the data given in this table, together with the provisions in the general laws and regulations applicable also to the chemical industry it will be seen that hours of work in this industry do not differ from those in force in other industries. The usual standard is the 8-hour day and the 48-hour week. This maximum is exceeded in some countries such as India and Japan; on the other hand hours are shorter in several Australian States (New South Wales, Queensland and in some industries in Victoria), Czechoslovakia in some industries, France, Great Britain, Italy, New Zealand, the United States, the U.S.S.R. and occasionally in some undertakings in certain other countries such as Belgium, the Netherlands and Yugoslavia.

Distribution of Hours within the Week

In some countries hours are not uniformly the same for every day of the week. Several regulations provide for a Saturday half-holiday or even for the distribution of hours of work over 5 days only.

In *Australia* the Federal awards and the awards and determinations for New South Wales, Queensland, and Victoria provide for a Saturday half-holiday and for longer hours on the first 5 days of the week. Some of the awards even allow for a 5-day week.

In *Austria* the general agreement for the chemical industry provides that the normal working time for each day of the week is to be fixed by each undertaking but that as a general rule work must cease on Saturday at midday and may in no case exceed $9\frac{1}{2}$ hours on the other days of the week.

In *Czechoslovakia*, according to the collective agreement for the chemical industry, the management of the undertaking, acting in collaboration with the works council or the workers' representatives, distributes hours of work over the week according to the needs of the undertaking. As a general rule work on Saturday must cease at 1 p.m.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides for:

- (1) the limitation of hours of actual work to 8 in the day on 5 days in the week every Saturday or Monday being free; or

- (2) the limitation of hours of actual work to 6 hours 40 minutes on each weekday; or
- (3) the unequal distribution of the 40 hours over the different days of the week with a view to establishing a weekly half-holiday, provided that not more than 8 hours are worked on any one day

If the collective agreements concluded between the employers' and workers' organisations for a branch of industry in a particular locality or region provide for the general adoption of one of the methods of arranging hours mentioned above, this method may be made compulsory for all undertakings in the branch of industry situated in the locality or region by an Order of the Minister of Labour.

If the employers' or workers' organisations in one or more branches of industry in a particular locality or region demand that a uniform method of arranging hours should be fixed for the undertakings in the branch or branches of industry in the locality or region in question, the decision on the request shall be taken by Decree after consultation with all the organisations concerned and with reference to the agreements if any, concluded between them.

The undertakings authorised to grant the weekly rest day in rotation which do not make use of this power and adopt the first method of arranging hours mentioned above may work 6 days in the week, each worker being entitled to a rest day in rotation in addition to the weekly rest. This provision applies in particular to carting and delivery services

In the rubber industry workshops with mechanical equipment may work six days in the week, each worker being employed for 5 days of 8 hours and having a rest day in turn.

Oil refineries non-continuous processes', depots and stores which adopt the first method of arranging hours of work mentioned above may allow part of their staff to take the rest day on Saturday, and the others on Monday

Undertakings which choose the method of distributing hours over 5 weekdays for their offices and agencies may employ a skeleton staff on the Monday (or Saturday) subject to granting a compensatory rest.

In other cases where the organisation of work by relays or by a system of rotation is justified it may be authorised by

a Ministerial Order issued after consultation with the employers' and workers' organisations concerned

In services where the work, although not itself necessarily continuous, is technically dependent on services which must necessarily be carried on continuously, the staff may be employed for 8 hours in the day during 5 weekdays with one day off in the course of the week

In *India*, in a Bombay match factory, the working week of 54 hours is usually divided as follows Monday, Tuesday, Wednesday and Friday, 9½ hours, Thursday, 10 hours; Saturday, 6 hours

In *New Zealand* the arbitration awards considered provide that work must cease on Saturday at midday, the hours corresponding to the Saturday afternoon are spread over the other days of the week

In *Norway* and *Sweden* the collective agreements usually provide that the 48-hour week is to be divided at the rate of 8½ hours on each of the first 5 days and 5½ hours on Saturday

Distribution of Hours over Several Weeks

In order to allow of greater flexibility in the organisation of the work and to meet certain technical difficulties some regulations provide for the distribution of hours over periods of more than a week

In *Australia* the Federal award concerning glue and gelatine workers provides for a working period of 176 hours over 4 weeks, subject to a weekly maximum of 48 hours

In *Austria*, in alcohol factories, hours may be organised in such a way as not to exceed 96 over 2 weeks but in no case may the hours of a shift exceed 12 hours

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides that in industries where the length of the processes necessitates such a system, it shall be possible to spread 80 hours of actual work over 2 consecutive weeks and 10 or 11 working days, subject to a maximum of 8 hours a day, and provided that the day on which work is suspended may only be a Saturday or a Monday, as well as the Sunday

This method of arranging hours is also subject to the provisions, mentioned on p 42, concerning the introduction of uniform methods for all undertakings in a locality or region.

In *Germany* the collective rules for the soap industry fix hours of work at 96 in any 2 weeks

In *Italy* the 40-hour agreements for the chemical industry, the artificial textile fibre industry, and olive oil refineries provide for the distribution of hours of work over a period of 4 weeks. In the rubber and plastic products industry the period is 6 weeks

In the *United States* the collective agreements concerning the oil industry provide that hours may not exceed 72 in any 2 weeks, with a maximum of 40 in the week and 16 in any 2 days

The code of fair competition for the chemical manufacturing industry provided for the distribution of hours over any period of 4 months and for a weekly maximum of 48 hours. Several of the codes for particular branches of the chemical industry also provided for the distribution of hours over periods of up to 6 months

B — CONTINUOUS OPERATIONS

Continuous Work except on Sundays

To judge from the regulations studied, the hours of work of workers employed on continuous processes that are interrupted on Sunday do not differ from those of workers employed on non-continuous processes. As a general rule they work 6 shifts in the week, and the length of the shift is usually the same as for workers whose work is not continuous. In addition the shift usually includes a break of 20-30 minutes for meals

Continuous Work throughout the Week including Sunday

The regulations special to the chemical industry contain the following provisions on continuous work carried on day and night and on Sundays, so far as it is possible to distinguish under these regulations between such completely continuous work and work that is interrupted on Sunday. It may be mentioned that in some cases the working week of each worker does not correspond to 7 times the shift of 6 or 8 hours, continuity of work is then secured by the employment of relief workers or shifts

In *Australia* the Federal award for the rubber industry fixes working hours at 132 in 3 weeks, subject to a maximum working week of 48 hours, thus making the average 44 hours per week. The Federal arbitration award for the artificial fertilisers industry fixes hours at 56 in the week.

In New South Wales the award for fertiliser manufacture provides for 88 hours of work in 11 consecutive days or 11 shifts in 12 consecutive days, no shift being allowed to exceed 8 hours. In addition the shift includes a break of 30 minutes for meals. No worker can be called back to his shift until he has been off work for at least 8 hours. The arbitration award for paint, varnish, etc., making provides for a 3-shift system for certain cases, each shift working 41 hours in the week. The shift must include a break of 20 minutes for meals, and the hours may be worked on a weekly or tri-weekly basis. The award for drug factory workers provides for a 44-hour week and a maximum 9-hour day. That for chemical workers provides that in the case of certain kinds of continuous work the hours shall be 44 per week, 88 per fortnight, or 176 per 4 weeks.

In Victoria the wage board determination for animal manure manufacture states that shift work is to be organised on the basis of 56 hours per week and 8 hours per shift. That for the rubber industry contains, as regards continuous work, provisions similar to those of the Federal award for the rubber industry mentioned above.

In *Austria*, in the manufacture of oxygen and other compressed gases, in branches of establishments in which continuous production over a period of 2 or 3 weeks is usually followed by a stoppage of production for several days, hours may be so arranged as to amount to not more than 224 in 4 weeks. Hours of work in any week in excess of 48 must however be paid as overtime.

In cellulose factories hours may be extended to 12 in the 24 in the case of continuous processes.

The general collective agreement for the chemical industry provides that the hours of work of any shift are to be 8 on each day of the week. The change-over of shifts must take place on Sunday in such a way that two shifts are changed every 12 hours, so that each worker may have 24 hours of uninterrupted rest every third Sunday.

In *Czechoslovakia* the collective agreement for the chemical industry provides that in industries involving continuous

processes the normal working day of each worker may not exceed 8 hours. The arrangement of shifts must be made in accordance with the requirements of the undertaking by the management in collaboration with the workers' representatives. In undertakings where work is continuous and does not stop on Sundays the change-over of shifts must, unless otherwise decided by the management of the undertaking in collaboration with the workers' representatives take place on Sunday in such a way that each worker has a rest period of 32 hours every third Sunday.

The legislation provides that to allow the 32-hour period of rest to fall on Sunday for each of the three shifts in turn, the alternation of shifts may be arranged so that one shift is allowed the 32-hour period of rest during Saturday and Sunday, its place being taken by the other two shifts. It is considered desirable, however, that a relief shift should be organised in order to provide for the weekly alternation of shifts.

In the alcohol industry under a recent agreement continuous operations must be organised on the basis of a 42-hour week.

In *Estonia*, in a shale-oil refinery, continuous processes are entrusted to 3 shifts each working 48 hours a week. The work is organised in groups of 7 workers, who have a day off duty in rotation. In two similar undertakings the hours are 168 over a period of 3 weeks, or an average of 56 hours per week. In order that some of the workers may rest on Sunday one shift works 2 spells on Sundays, so that each shift receives two free Sundays in every period of 3 weeks, and works one 60-hour week, one 54-hour week, and one 52-hour week in succession.

In *France*, for work which, by reason of its nature must be carried on continuously without a break at any time of the day, night or week, the working week may average 42 hours over a period of 12 weeks, provided that not more than 8 hours are worked on any one day and that each worker receives at least one weekly rest period of 24 consecutive hours.

In *Great Britain* the workers employed on continuous processes in the heavy chemical industry work an average of 6 shifts (48 hours) in the week.

In *India*, in a chemical and pharmaceutical works the working week in the case of continuous processes is 56 hours.

In *Italy* the agreements on the 10-hour week for the chemical industry in general and for olive-oil refining provide that in undertakings which adopt the four-shift system hours of work may be increased to 42 in the week

In *Japan* the organisation of continuous operations varies very much with the undertaking. In a large number of cases they are organised in 2 shifts of 12 hours, and in some cases in 3 shifts working from 8 to 9 hours

In the *Netherlands*, under legislation, continuous operations average 144, 156, or 168 hours over 3 consecutive weeks (see above, p. 30)

In *Norway* workers employed on continuous operations have a 48-hour week, the work being organised in such a way that each worker receives an uninterrupted weekly rest of 24 hours

In *Rumania*, in petroleum refineries, the hours are generally fixed at 56 in the week for continuous operations

In *Spain*, in the province of Ciudad Real, continuous operations in the chemical industry are organised in 4 shifts of 6 hours on Sundays and statutory holidays. These 6-hour shifts receive the same wage as the 8-hour shifts on weekdays. No worker may be required to work two consecutive shifts. Hours thus average 54 in the week for each worker

In *Sweden* hours of work are fixed by legislation at 48 in the week averaged over any period of 3 weeks. The Labour Council may grant exceptions to increase this average to 56 hours. A few undertakings in the chemical industry have been allowed such an exception, but only for a comparatively small number of workers

In the *United States* the agreements for a group of firms in the oil industry provide that the hours of work for shift workers shall be based on an average 36-hour week, each shift consisting of 8 hours. The work is organised in such a way that each worker has 9 consecutive working days followed by 5 days off duty. In a firm producing chemicals, the workers employed on continuous processes may normally be employed for up to 44 hours in the week

The code for the chemical manufacturing industry provided that for workers engaged on continuous operation at places

where an adequate supply of qualified labour was not available and where the restriction of their hours would unavoidably reduce production, the average weekly hours might be extended to 48. At the end of each month the employer had to report to the body responsible for the administration of the code the number of man-hours worked in excess of 40 in the week, the reasons for exceeding the 40-hour week, and the ratio of such man-hours to the total number of man-hours worked during the month.

In *Yugoslavia* the most usual arrangement for continuous operations is a 56-hour week averaged over 3 weeks: 2 weeks of 60 hours and 1 week of 48 hours. In a chemical works in the banovin of Drina the work is organised on the basis of a 48-hour week with one relief worker for each group of two shifts working simultaneously.

C — DANGEROUS AND UNHEALTHY WORK

In several cases the general legislation or the special legislation on hours as well as other legislative measures provide that hours must or may be reduced in the case of dangerous or unhealthy work. This is so in *Argentina, Bulgaria, Estonia, Germany, Great Britain, Latvia, Norway, Portugal, Rumania, Switzerland, Turkey*, and the *U S S R*.

In *Argentina* hours are reduced to 6 in the day and 36 in the week for certain kinds of work, in *Austria* to 4 or even 2 hours in the day, in *Germany* to 6 in the day, and in the *U S S R* to 6 in the day (in some cases 4 or 3 hours).

These provisions apply to certain workers in the chemical industry. In *Argentina, Austria, Germany*, and the *U S S R* the operations for which a reduction of hours for work of this kind is prescribed are enumerated in the section of this Report relating to the scope of the regulations.

Further, in *Germany* the hours of work legislation provides that a permit to exceed normal hours may not be granted for workers whose life or health is endangered owing to the fact that they are more especially exposed to the influence of heat, poisonous substances, dust, etc., or the risk of explosion, unless such a permit is needed for reasons of public interest or the experience of several years has shown that the extension is

harmless in such cases the extension may not exceed half an hour per day. The Minister of Labour is to define the branches of industry or classes of workers affected by the limitation.

It may also be mentioned that in *Australia* the Federal arbitration award for the rubber industry provides that in the case of certain unhealthy operations no person may be employed for more than 2 consecutive hours or resume work until after a break of 4 hours.

In *Yugoslavia*, in the banovin of Primorska, the workers engaged on certain operations connected with the manufacture of calcium carbide are employed only for 4 hours in the day on such work and are employed on other work during the remaining 4 hours of the day.

In *Japan* certain undertakings in which dangerous or unhealthy work is carried on (see above pp 28-29) are on that account and irrespective of the number of workers employed subject to the Factory Act which limits the hours of work of women and young persons.

Similarly in the *Philippine Islands*, it is on account of its dangerous character that the manufacture of explosives is subject to the statutory regulations concerning hours of work.

5. Making up Lost Time

Only a few of the regulations special to the chemical industry contain provisions to allow for making up lost time.

In *Austria* according to the general collective agreement for the chemical industry time lost on account of certain public holidays may be made up by an extension of hours on other days. For some of these holidays the decision must be taken in agreement with the works council. In no case may the extension of hours exceed 2 hours a day or 5 hours on Saturday. It must take place during the week in which the holiday falls or the preceding or following week unless the management or the works council decides that the extension shall take place during a busy season.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides for various forms of making up lost time.

In the first place, it authorises the making-up of time lost on account of a general stoppage of work due to accident or *force majeure* (accidents to plant, failure of driving power, lack of fuel for the heating of vats and boilers, general shortage of raw materials, considerable shortage of means of transport, catastrophes) under the following conditions

- (a) Stoppages not exceeding one day to be made up during the fortnight following the date work is resumed,
- (b) Stoppages not exceeding a week to be made up within the 50 days following the date work is resumed,
- (c) Stoppages exceeding a week not to be made up beyond the limit specified under (b) without a written permit from the labour inspector, issued after consultation with the employers' and workers' organisations concerned

In case of a general stoppage of work due to accident or *force majeure* as specified above, the making-up of lost time may not lead to an increase of more than one hour in the working day. If, however, the head of an undertaking wishes for such a reason to extend the working day by more than one hour, he must submit a reasoned application to the labour inspector, who will decide after consulting the employers' and workers' organisations concerned. In no case may the extension exceed 2 hours.

The Decree also provides that industries which can show that they normally have slack periods of work at certain times of the year as a result of the special conditions in which they work may be authorised to make up time so lost to a maximum of 100 hours a year and 1 hour a day by Ministerial Order, issued after consultation with the workers' and employers' organisations concerned, including the national occupational organisations concerned. The Order will define the industries for which the extension is allowed and the number of hours that may be made up. In case of exceptional prolonged unemployment in an occupational group, the labour inspector may suspend the right to make up lost time.

In undertakings where the time-table includes a weekly holiday or half-holiday, the making-up of lost time provided

for above may be effected by suspending this holiday or half-holiday subject to authorisation by the labour inspector after consultation with the employers' and workers' organisations concerned

Lastly, in undertakings where the usual time-table includes, in addition to the weekly rest day, a day or half-day of rest, the workers may be employed on this day or half-day in compensation for time lost by reason of a public holiday. The labour inspector, after consultation with the employers' and workers' organisations concerned may authorise the making-up of time lost on other days owing to a local festival or other local events. In no case may the making-up of such time mean an extension of the working week beyond 40 hours

The head of an undertaking who wishes to make use of his right to make up lost time as indicated above must state in the notice or application which he must submit to the labour inspector the nature, cause and date of the general stoppage of work, the amount of time lost, the changes that he proposes to make temporarily in the time-table with a view to making up the lost time, and the number of persons to be affected by the changes

In *Germany* the model collective rules provide that lost time may be made up by an extension of hours on other days in the same or the following week

6. Exceptions

The provisions concerning exceptions to the regulation hours, that is to say extensions, are considered below from the three following points of view

- A — Reasons for exceptions
- B — Procedure for authorisation of overtime
- C — Overtime rates

A — REASONS FOR EXCEPTIONS

Only those exceptions are mentioned here that are expressly provided for in the regulations special to the chemical industry. Their purpose is to enable undertakings to cope with the following circumstances

- (i) Accidents, actual or threatened, urgent repairs to machinery or plant, other cases of *force majeure*,
- (ii) Operations which for technical reasons cannot be interrupted at will or must be carried on in order to prevent the deterioration of raw materials or manufactured goods,
- (iii) Seasonal work,
- (iv) Work calling for special technical qualifications,
- (v) Extensions needed to provide for the periodical alternation of shifts or to make good the unforeseen absence of one or more members of a shift,
- (vi) Preparatory and complementary work,
- (vii) Intermittent work,
- (viii) Exceptional pressure of work

Finally, a special section, under the heading "General Exceptions", deals with the cases in which exceptions are allowed for reasons not clearly specified

It may also be recalled that exceptions to normal hours of work allowed under the general legislation are applicable to the chemical industry in the same way as to other industries, unless the special regulations lay down more restrictive conditions, in which case the latter alone apply. Accordingly, in considering the exceptions provided under the special regulations for the chemical industry in the countries in which these exist, reference must also be made to the general exceptions figuring in the appended Report

- (1) *Accidents actual or threatened, urgent repairs to machinery or plant, other cases of force majeure*

These exceptions are generally allowed although only a few regulations refer to them specifically

In *Australia*, in *Queensland*, mention is made of exceptions in case of flood, fire or tempest, together with a provision that overtime due to such causes must be paid at ordinary rates

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides for the temporary extension of hours beyond the normal limits for urgent

work which must be carried out immediately in order to avert impending accidents, for salvage purposes, or to repair damage to the machinery, plant or buildings of the undertaking, or to oil tankers about to sail, unlimited extension is allowed on any one day chosen by the head of the undertaking, but on subsequent days it may not be more than 2 hours

In the *United States* one of the collective agreements for the oil industry provides that the workers may be required to work outside their regular working hours in the event of "an emergency due to fire, runaway wells, pipe line leaks or breaks, or acts of God "

The code for the chemical manufacturing industry explicitly provided for exceptions in cases of emergency, since it stated that at the end of each month the employer must report to the body responsible for the administration of the code the number of man-hours worked in such cases, giving the reasons therefor and the ratio of such emergency man-hours to the total number of man-hours during the month

An official interpretation defined cases of emergency as "any threatened or actual catastrophe which involves or may involve loss of life or property as the result of storms, floods, fire, earthquakes, or other conditions over which man has no control, or emergency maintenance or repair work brought about by breakdown involving the protection of life or property "

- (11) *Operations which for technical reasons cannot be interrupted at will or must be carried on in order to prevent the deterioration of raw materials or manufactured goods*

It is impossible to determine in advance what time will be required for certain processes in the chemical industry. Some reactions, once they are started, require quite different times for their completion on different occasions, a time that may exceed the normal working day. Others, once they have been begun, cannot be interrupted without a risk of deteriorating the raw materials or the products being manufactured. The possibility of spreading the calculation of hours over a comparatively long period provides sufficient elasticity for such processes, whose nature makes it impossible to determine their duration exactly in advance. In addition there are various special regulations authorising an extension of the normal hours in cases of this kind.

In *Belgium*, for the operations enumerated above (see pp. 23-24), an allowance of 100 hours of overtime a year, with a maximum of 2 hours a day, is granted.

In *Czechoslovakia* the collective agreement for the chemical industry states that overtime must be avoided as much as possible. If, however, work cannot be held up for technical reasons, it must be carried out without delay when ordered by the management of the undertaking.

In *France* the work of persons specially engaged in operations which for technical reasons cannot be stopped at will may be extended by not more than 2 hours a day when owing to their nature or exceptional circumstances, it is impossible to terminate these operations within the period fixed by the regulations.

(iii) *Seasonal work*

The volume of production in certain branches of the chemical industry is determined by the season. This applies for instance to the treatment of agricultural raw materials which has to be carried out without delay and to the supply of products for agriculture, such as fertilisers which have to be used in particular seasons.

In *Austria*, in alcohol factories where raw alcohol is distilled from beet sugar (beetroot distilleries) hours may be extended to 12 in the 24 during the beet harvest. Any hours worked in excess of 8 in the 24 must be paid for as overtime.

In *Italy*, according to Decree No. 1957 of 10 September 1933, workers in the superphosphates industry employed on preparatory and despatch work and workers employed on the preparation of glue, bone glue, and osseine may be required to work up to 10 hours a day and 60 hours a week during 3 months in the year.

Certain electro-chemical undertakings which consume not less than 10 million kwh. of electricity a year, which suspend work for not more than 4 months in the year, and which are entitled to a charge of not less than 50 per cent. below the normal rate for the electricity they consume, are authorised by a Royal

Decree of 5 December 1932¹ to extend hours up to 10 in the day and 60 in the week during not more than 6 months in the year

In the *United States* a local collective agreement for the fertiliser industry provides that during the busy season the staff may be employed for 48 hours per week at the regular rate of pay for not more than 16 weeks in the year, except in cases where it is necessary to continue operating on this basis to produce required tonnage

The code for the chemical manufacturing industry provided that the persons employed in departments or divisions of the chemical industry in which season or peak demand placed an unusual and temporary requirement for production upon such departments or divisions might be permitted to work an average of 44 hours per week in any three months' period, subject to a maximum of 48 hours in any one week. Similar exceptions were allowed in many of the codes for separate branches of the chemical industry

(iv) *Work calling for special technical qualifications*

There are many operations in the chemical industry which require the presence of highly skilled workers, technical experts or chemists who are employed either on the actual manufacturing process or on research, analysing, and testing work in laboratories. The general provisions on hours of work often do not apply to the more highly skilled members of the staff, who are regarded as persons employed in a confidential capacity. This is the case for instance in *Belgium* and *Rumania*

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides for such exceptions in the case of the work of supervisory staff on the preparation of the undertakings' operations in connection with the reception and verification of new apparatus. The extension may not exceed 1 hour a day

In *Italy* certain classes of workers are excluded from the scope of the agreements concerning the application of the 40-hour week in various chemical industries (see p 35).

¹ *Gazzetta Ufficiale*, 27 January 1933, p 344

- (v) *Extensions needed to provide for the periodical alternation of shifts or to make good the unforeseen absence of one or more members of a shift*

In *Austria* the general collective agreement for the chemical industry implicitly provides for the extensions needed for the alternation of shifts since it establishes special rates of overtime pay in this case.

In *Czechoslovakia* the collective agreement for the chemical industry stipulates that when shifts change over, the shift on duty must await the arrival of the next shift.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides that the work of a supervisor, foreman or skilled worker whose presence is indispensable to the carrying out of operations in a workshop or to the working of a shift may be extended in the unforeseen absence of his substitute pending the arrival of another substitute. The extension is limited to the period of absence of the person required to replace him. Similarly, an extension of not more than a $1\frac{1}{2}$ hour may be required of a foreman or skilled worker whose presence is indispensable to the co-ordination of the work of two successive shifts

The collective agreements usually allow, where work is organised in successive shifts the hours of certain workers or labourers to be extended to ensure that their work will be carried on if a member of the following shift fails to appear.

In *Germany* the model collective rules for the chemical industry provide for the extension of hours to make up for the unforeseen absence of a member of the following shift. A worker who continues to work after his shift is over is entitled to overtime pay for such additional hours.

In *Spain* some of the standards of employment fix the compensation due to workers who have to go on working owing to the absence of a worker in the next shift on duty

In the *United States* the collective agreements for the oil industry provide for the case of a shift worker who is required to remain at work because a relief man is late or fails to appear.

(vi) *Preparatory and complementary work*

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries states that hours of work may be prolonged by not more than 1 hour a day in the case of persons specially employed on minding kilns, furnaces, stoves drying-rooms, hot presses, autoclaves, gas-producers and boilers other than those used for generating power, or on the preparation of process baths and the heating of tubs and vats, provided that this work is of a purely preparatory or accessory nature and does not constitute a branch of the main work of the undertaking, and in the case of enginemmen, electricians, and firemen employed in connection with the power supply, lighting, heating, and hoisting plant. This extension may be increased to 1½ hours in the case of firemen employed in connection with the working of steam machinery. An extension of not more than 1 hour is also allowed in the case of persons employed regularly or occasionally during stoppages of production on the maintenance and cleaning of engines, furnaces and all other apparatus which cannot be stopped independently during the general work of the undertaking owing to the interconnection of operations. In undertakings where the usual working time-table includes, in addition to the weekly rest day, a day or half-day of rest, these workers may be employed on such day or half-day provided compensatory rest is granted.

In *Spain* the national standards of employment for the match industry state that the workers employed on boilers and engines may be required to continue to work as long as this is strictly necessary for the performance of their duties.

In the *United States* the code for the chemical manufacturing industry provided that certain classes of workers such as engineers and cleaners could be employed up to 44 hours per week averaged over any three-months' period, and up to 48 hours in any one week. The other codes contained similar provisions.

(vii) *Intermittent work*

In *Austria* the general collective agreement for the chemical industry provides that the hours of persons whose work consists

mainly in attendance such as porters, caretakers and night watchmen, may exceed 48 in the week, provided that a lump sum is paid for the overtime worked

In *France* the working week of persons employed on watch-keeping and supervision and of the fire brigade may be extended to an average of 56 hours calculated over a period of 3 weeks subject to a maximum of 12 hours a day. The hours of level-crossing keepers, signallers, and operating staff on sidings connecting an undertaking with the main or local railway system may be extended by not more than 2 hours a day. The work of drivers of motor or horse vehicles, deliverymen, and storekeepers may be extended by not more than 1 hour a day (1½ hours for drivers of horse vehicles), this period may be increased by 1½ hours if the meal time is included in the hours of work. The hours of persons in charge of medical services, mothers' nursing rooms, and other institutions established for the benefit of the workers and salaried employees of the undertaking and their families, as also those of timekeepers, office boys and similar employees, and the staff employed in cleaning the premises may be extended by not more than 1 hour a day.

In *Germany* the model collective rules for the chemical industry provide that hours may be extended without additional pay for time-keepers, porters, caretakers, the fire brigade, the works police, medical staff, the permanent staff of the works canteen and baths, telephonists, messengers, office and laboratory porters and deliverymen. Under the rules for the soap industry, the normal hours of the above categories of staff may be extended to 8 in the day.

In the *United States* the code for the chemical manufacturing industry provided that certain classes of workers such as repairmen, electricians, loaders, truck drivers and watchmen might be employed for up to 44 hours per week averaged over any three-months' period and up to 48 hours in any one week. The other codes usually contained similar provisions.

(viii) *Exceptional pressure of work*

The chemical industry is covered by the provisions of general hours of work legislation concerning extensions of working hours on account of exceptional pressure of work and the payment for overtime.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides for an allowance of 75 hours' overtime a year to cope with urgent and exceptional work in cases of extraordinary pressure of work. The hours of actual work may not be extended by more than 1 hour a day. In case of exceptional prolonged unemployment in an occupation the Minister of Labour may, at the request of one of the employers' or workers' organisations concerned and after consultation with all the organisations, issue an Order to suspend temporarily in whole or in part the use of this overtime for the occupation in the whole of France or in one or more specified regions.

The Decree also provides as a permanent exception that the working day may be extended by not more than 2 hours for work done to ensure the loading or unloading of cars, ships, aeroplanes or lorries within a stipulated period if this is necessary and sufficient to permit the work to be finished within the period.

(ix) *General exceptions*

In several cases the regulations do not specify the reasons for which hours of work may be extended, but the possibility of working overtime is implicit in the fact that they prescribe the payment of higher rates for any hours worked in excess of the normal limits. This applies, for instance, to the arbitration awards in force in Australia and New Zealand, the Spanish standards of employment, the German collective rules, and most of the collective agreements and works rules examined for this Report.

Some of the provisions laid down by the regulations are of a very general character.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries allows the extension of normal hours of work for work carried out in the interests of national safety or defence or of a public service under an order from the Government certifying the necessity for extension as also for urgent work in the pharmaceutical products industry in the event of an epidemic. The limits to be fixed in each case by agreement between the Minister of Labour and the Minister ordering the work.

In *Germany* under the collective rules for the soap industry the working day may be extended to 10 hours for not more

than three months in any one year for special and temporary reasons and after consultation with the confidential council of the undertaking

B — PROCEDURE FOR THE AUTHORISATION OF OVERTIME

The procedure for obtaining permission to work overtime differs from country to country and is as a rule defined in the general legislation. Few of the regulations special to the chemical industry contain specific provisions on this point. In case of accident, danger or other *force majeure*, the employer is not as a rule required to comply with any formalities beforehand, notification to the labour inspection authorities being sufficient.

He may usually avail himself without formality of the other exceptions apart from that for exceptional pressure of work, which in most cases requires a special procedure for authorisation under the general legislation and in some cases under the regulations special to the chemical industry.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries provides that the head of any undertaking who wishes to have recourse to overtime to meet an extraordinary pressure of work must apply to the labour inspector for a permit. The application must be dated and must specify the nature of and reason for the exception asked for, the number of workers whose hours are to be extended, the days on which the overtime is to be worked, the hours and rest periods proposed for these workers, and the proof that he is unable to meet the extraordinary pressure of work by other means such as the engagement of additional staff.

In *Italy* the general agreement of 23 June 1935 concluded between the confederations of employers and workers which applies also to the chemical industry states that whenever normal hours of work are exceeded the employer must within 24 hours notify his local association, which in turn notifies the corresponding workers' association stating the reasons for which, in the employer's opinion, the situation cannot be met by engaging extra staff. If the associations consider these reasons unsatisfactory they may order the cessation of overtime. In the event of disagreement the question must be settled by the corporative inspectorate.

It should be noted that in these two countries the right to use overtime to meet exceptional pressure of work is made conditional on there being a shortage of labour

It may be added that in *Spain* the national standards of employment for the petroleum industry distinguish between two kinds of overtime voluntary overtime and compulsory overtime The first obviously cannot be worked unless the workers in question consent Compulsory overtime applies only to office staff and the persons employed on the continuous loading or unloading of ships when this extends beyond the statutory working day or has to be done outside the ordinary time-table Some of the other standards of employment provide that overtime may be worked only with the workers' consent

C — OVERTIME RATES

Generally speaking, the regulations regard as overtime all time worked in excess of normal weekly hours or outside the normal hours fixed for the beginning and end of the daily work of the undertaking Below are given the overtime rates prescribed by the various regulations and the conditions under which they apply

Australia — (a) Award for glue and gelatine workers

Time and a half for the first two hours worked outside ordinary hours,

Double time thereafter and for work on Sunday and public holidays or performed during meal hours, the effecting of repairs or renewals, the cleaning of plant or machinery and certain emergency work on a Sunday or public holiday is paid at time-and-a-half rates

(b) Arbitration award for the rubber industry

Time and a half for all time worked before or after the usual starting or finishing time,

Double time thereafter and for work on Sunday and public holidays

(c) Arbitration award for fertiliser manufacture

Time and a half for time worked before or after the time a man usually begins or leaves work,

Time and a half or double time for work done on Sunday, according as the work is continuous or not

New South Wales — (a) Arbitration award for fertiliser manufacture

Time and a half for work done on ordinary days in excess of prescribed hours,

Double time for work done on Sunday and public holidays (time and a quarter in case of continuous work).

(b) Arbitration award for paint, varnish, etc., making :

Time and a half for the first three hours of overtime worked on any week day ;

Double time thereafter and for time worked on Sundays and public holidays.

(c) Arbitration award for drug factories .

Time and a half for overtime worked on weekdays and certain holidays ;

Double time for work on Sunday and certain public holidays.

(d) Arbitration award for bone milling and manure making :

Time and a quarter for the first hour of overtime worked on weekdays ;

Time and a half thereafter ,

Double time in most cases for work on Sunday and public holidays

(e) Arbitration award for chemical workers .

Time and a half for the first four hours of overtime worked on weekdays ;

Double time thereafter and for all work done between midnight and 7.30 a.m. (except for men called upon to start work between 6 a.m. and 7.30 a.m. when time-and-a-half rates are paid).

Double time for the extra shift in case of shiftmen required to work a second shift, unless the excess is owing to arrangement between the workers themselves.

(f) Arbitration award for linoleum workers

Time and a half for the first four hours of overtime worked on weekdays except Saturday ;

Double time thereafter and for work on Saturday (except shift workers), Sunday and public holidays

(g) Arbitration award for margarine makers

Time and a quarter for the first hour of overtime worked on weekdays ,

Time and a half thereafter up to four hours, after which double time is paid ,

Double time for work on Sunday and public holidays and during meal times

(h) Arbitration award for soap and candle makers

Time and a half for the first four hours of overtime worked on weekdays ,

Double time thereafter and for work done on Sunday and public holidays

Queensland — Arbitration awards for soap and candle makers, margarine manufacture, rubber workers, fertiliser manufacturing, and distillery employees .

Time and a half in most cases for overtime worked on weekdays ,

Double time for work on Sunday and public holidays (time and a half for certain holidays)

Victoria — (a) Wage board determinations for manufacturing chemists and animal manure manufacture

Time and a half for all overtime ,

Double time for work on Sunday and public holidays

(b) Wage board determination for glue and gelatine manufacture

Time and a quarter for overtime worked from Monday to Friday where one shift only is worked, and for overtime worked on Monday to Saturday where three shifts are worked ,

Time and a half for overtime worked on Saturday where one shift is worked ,

Double time for time worked on Sunday and public holidays

(c) Wage board determinations for soap soda candle and starch making and the making of polishes etc.

Time and a half for overtime worked on weekdays:

Double time for work on Sunday and public holidays

(d) Determination of court of industrial appeal for artificial manure making:

Time and a third for the first two hours of overtime.

Time and half thereafter and for work done on Sunday and public holidays

(e) Wage board determination for the rubber trade.

Time and a half for the first four hours of overtime:

Double time thereafter and for work on Sunday and public holidays

Double time for work on public holidays

Austria. — (a) General agreement for the chemical industry:

Time and a quarter for the first two hours of overtime;

Time and a half thereafter, or if the worker is required to return to work after having left the workplace

On weekdays when the worker is not required to work time-and-a-quarter rates are paid for the first four hours of overtime and time and a half thereafter.

In undertakings working continuously the rates for overtime when the shifts are changed over are time and a quarter for the first six hours and time and a half thereafter

Time and a half for work on Sunday and public holidays (time and a quarter for certain holidays)

A lump sum for firemen porters, the fire brigade, caretakers, and night watchmen

(b) Collective agreement for the rubber industry.

Time and a quarter for overtime worked on weekdays,

Time and a half for work on Sunday and public holidays (time and three-quarters for certain holidays).

A lump sum for overtime worked by workers whose hours are difficult to check, e.g. drivers chauffeurs etc or whose duties are intermittent e.g. porters, caretakers night watchmen

Czechoslovakia — Collective agreement for the chemical industry .

Time and a quarter for overtime worked on weekdays ,
Time and a half for work done on Sunday and certain
public holidays (double time for other holidays)

France — (a) Decree fixing the methods of applying the
40-hour week in the chemical industries

Work done in excess of the normal hours in the event of
extraordinary pressure of work or to ensure the loading or
unloading of cars ships aeroplanes or lorries within the
stipulated period is deemed to be overtime and must be paid for
at an increased rate which may not be less than time and a
quarter or any higher rate fixed by the collective agreements or
customs in force

For work done in the interest of national safety and
defence or of a public service the increased pay for overtime will
be fixed by agreement between the Minister of Labour and the
Minister ordering the work with reference to the collective
agreements and customs in force

(b) Collective agreement for the oil industry (Paris region)

30 per cent increase for the first two hours of overtime ,
50 per cent increase thereafter and for night work required
without notice or for maintenance work done on a
Sunday or public holiday

(c) Collective agreements for the heavy chemical industry,
paints and varnishes, inks, zinc white (Paris region)

Time and a third for the first two hours of overtime ,
Time and a half thereafter and for night work required
without notice or for maintenance work done on a
Sunday or public holiday

(d) Collective agreement for rubber (Paris region)

Time and a third for the first two hours of overtime
Time and a half thereafter and for work done on Sunday
and public holidays

(e) Collective agreement for cleaning products etc
(Paris region)

30 per cent increase for the first two hours of overtime ,

50 per cent increase thereafter and for night work required without notice or for maintenance work done on a Sunday or public holiday.

Germany. — (a) Collective rules for the chemical industry :

Time and a quarter for each hour worked in excess of eight in the day :

Time and a half for work on Sunday and public holidays double time for certain holidays.

(b) Collective rules for the soap industry :

Time and a quarter for hours worked in excess of the regulation hours :

Time and a half for work on Sunday and public holidays double time for certain holidays.

Great Britain. — Heavy chemical manufacture : Semi-skilled and unskilled day workers : time and a quarter for two hours and time and a half thereafter. (Shift workers employed between 10 p.m. Saturday and 6 a.m. Monday receive time and a half.)

Drug and fine chemical manufacture : Time workers : time and a quarter for two hours on each day and time and a half thereafter. double time on Sunday.

Paint, colour and varnish manufacture : Day workers : time and a quarter for two hours. time and a half thereafter. time and a half on Saturday. and double time on Sunday.

Soap and candle manufacture : time and a quarter for two hours and time and a half thereafter : time and a half on Saturday and double time on Sunday.

Boot and floor polish manufacture : time and a quarter for two hours on each day. time and a half for the next two hours. and double time after four hours and on Sundays.

Italy. — (a) Collective agreement for the manufacture of chemical products for agricultural use :

20 per cent. increase for overtime worked on weekdays ;

50 per cent. increase for work on Sunday and public holidays :

40 per cent increase for overtime worked at night

(b) Collective agreement for the chemical industry

20, 25 or 30 per cent increase for the first two hours of overtime, according as they are worked on weekdays, a Sunday or public holiday, or at night,

30, 45 or 75 per cent increase for the next three hours, according as they are worked on weekdays, a Sunday or public holiday, or at night,

50, 80 or 100 per cent increase for hours in excess of five, according as they are worked on weekdays, a Sunday or public holiday, or at night

(c) Collective agreements for the oil industry

Time and a half for overtime, work on Sunday and public holidays, and night work

Japan — Various works rules

10 to 50 per cent increase for overtime worked on weekdays,

20 to 100 per cent increase for work on Sunday and public holidays

Netherlands. — (a) Collective agreement for the manufacture of wafer capsules

Time and a quarter for the first two hours of overtime worked on weekdays,

Time and a half thereafter,

Double time for work on Sunday and public holidays

(b) Collective agreement for dextrin manufacture

Time and a quarter for overtime worked on weekdays

Double time for work on Sunday

New Zealand — Arbitration awards for chemical manure workers, manure, tallow, acid, soap and candle workers, and match workers in various districts

Time and a half for the first four hours worked beyond the normal working day,

Double time for work on Sunday and public holidays (time and a half for certain holidays)

Norway. — Collective agreements for various chemical industries .

Time and a quarter for the first two hours of overtime

Time and a half thereafter :

Double time for overtime worked on Saturday and the days before holidays after ordinary hours and for work on Sunday and public holidays

Rumania. — The various collective agreements examined (for the oil industry, match manufacture wood distillation and the manufacture of chemical products), which are all local agreements, provide for increases of 25 to 100 per cent according to the amount of overtime and the day on which it is worked

Spain. — a) National standards of employment for the petroleum industry :

Voluntary overtime :

Time and a quarter for the first two hours :

Time and a half thereafter and for work at night and on Sunday :

60 per cent. increase for women.

Compulsory overtime (office staff workers responsible for the continuous loading or unloading of ships outside the statutory working day or the ordinary timetable) :

Time and a half for the first four hours of overtime in the day :

Double time thereafter.

b) Standards of employment for the manufacture of chemical products in the Province of Almeria :

Time and a quarter for the first twelve hours of overtime worked in the week .

40 per cent. increase thereafter and for work on public holidays or the workers rest days.

c Standards of employment for the chemical industry in the Province of Ciudad Real :

Time and a half for overtime worked on weekdays :

Double time for work in excess of six hours on Sunday

in the case of workers employed in shifts on continuous operations

(d) Standards of employment for the soap industry in the Province of Cordoba

Time and a quarter for all overtime

(e) Standards of employment for the carbide industry in the Province of Coruña

Time and a half for the first two hours of overtime,
Double time thereafter

(f) Standards of employment for the chemical industry in the Province of Navarra

Not less than 20 per cent increase for all overtime

(g) Standards of employment for the manufacture of chemical products in the Province of Salamanca

Time and a quarter for the first hour of overtime,
30 per cent increase thereafter

(h) Standards of employment for chemical manure manufacture in the Province of Biscay and for lye manufacture in the Province of Saragossa

Time and a half for all overtime

Sweden — The collective agreements examined, which apply to a great variety of chemical industries and most of which are local, provide for increases of 25 to 100 per cent according to the amount of overtime and the day on which it is worked

United States — Collective agreements for the manufacture of various chemical products, the oil industry, and match manufacture.

Time and a half in most cases for all overtime

Yugoslavia — Most of the works rules examined fix time-and-a-half rates for overtime and some fix higher rates for work done at night or on Sunday

7. Measures for Enforcement of Regulations

In some countries — for instance, Australia, Austria, Czechoslovakia, France, and the United States — the regulations special to the chemical industry contain provisions for enforcement

Usually the purpose of such clauses is to enforce not only the provisions relating to hours of work but also certain other measures, many of which deal with wages

In *Australia* several Federal arbitration awards for the chemical industry provide for the setting up in each State of a board of employers and workers under the chairmanship of an independent magistrate. This board has power to settle disputes and deal with any matters arising out of the award.

Some of the New South Wales awards provide for arbitration in some form for the settlement of any disputes arising out of their application.

In *Austria* the general collective agreement for the chemical industry provides that all disputes arising out of the application of the provisions of the agreement are to be settled without appeal by an arbitration board, consisting of a chairman and three representatives each of employers and workers, the chairman being selected by agreement between the parties. The collective agreement for the rubber industry states that cases of dispute that cannot be settled within the undertaking itself must be notified to the contracting organisations by the works council and the management of the undertaking respectively, in order that the organisations may settle the matter.

In *Czechoslovakia* the collective agreement for the chemical industry provides that district conciliation offices and a central conciliation office are to be set up to deal with disputes that cannot be settled by the statutory arbitration boards. The district offices, which consist of two representatives each of the employers' and workers' organisations concerned, act as the authority of first instance. If they are unable to settle the dispute, the matter is referred to the central office, which consists of four representatives each of the contracting organisations. If the central office too fails to settle the dispute, either party is entitled to demand the intervention of the competent statutory administrative department or to bring the case before the competent authority.

In *France* the Decree fixing the methods of applying the 40-hour week in the chemical industries stipulates that in each undertaking or part of an undertaking workers and salaried employees may work only to a time-table showing the distribution of hours of work for each day. The time-table must state

the hours at which each period of work begins and ends and outside which no worker or salaried employee may be employed.

The total hours of work comprised in the working period may not exceed the statutory limits. Any change in the arrangement of hours must be recorded in this time-table before it is put into operation.

The time-table dated and signed by the head of the undertaking or on his responsibility by the person to whom he may have delegated his authority for the purpose, must be posted up conspicuously and in legible characters in each of the workplaces to which it applies or in the case of persons employed out-of-doors in the undertaking to which the persons in question are attached.

A duplicate of the time-table and of any changes made in it must be submitted in advance to the labour inspector.

If shifts are worked the names of the workers in each shift must either be posted up or be recorded in a special register, which must be kept up to date and placed at the disposal of the labour inspectorate.

The above provisions must be observed if the organisation of the work in relays or by a system of rotation is authorised.

As regards the exceptions for extraordinary pressure of work the head of the undertaking must keep a table up to date for recording, as and when applications are made to the labour inspector the dates when use is made of the exceptions allowed and the period for which such exceptions apply. The table must be posted up in the undertaking and remain there from 1 January of the current year to 15 January of the next year.

In the *United States* the collective agreements for the oil industry provide for methods of conciliation and arbitration for the settlement of any disputes arising out of the application of the clauses of the agreements. For this purpose provision is made for the appointment of workers' committees to represent the workers in their negotiations with the managements of the companies.

As a rule the codes of fair competition introduced for each code a supervisory agency, which in case of need could require that any undertaking under its authority should furnish it with statistics and other information relating to conditions of employment. In addition, there were joint labour boards responsible for settling disputes arising out of the application of the

provisions dealing with conditions of employment. Finally, the provisions of the codes concerning wages, hours of work and conditions of employment had to be posted up in each undertaking.

III. — ACTUAL HOURS OF WORK

Below are given some particulars based on the most recent statistics available as to hours of work in the chemical industry in the following countries: Austria, Estonia, Finland, France, Germany, Great Britain, Hungary, Italy, Japan, Poland, Sweden, Switzerland, and the United States.

In most cases these figures are taken from statistics compiled periodically on the basis of returns from some of the undertakings in the principal industries. They therefore do not relate to all the workers in the industries or branches of industry concerned, and the number of undertakings covered may vary slightly from one date to another.

The following tables give the series relating to the chemical industry. The classification of the various divisions and subdivisions of the industry varies, however, from one country to another, and differences may in fact exist even when the terms used are identical. Moreover, the form in which the data are compiled also varies considerably. Sometimes the statistics give the percentage of workers having worked for a specified number of hours per day or week or fortnight, and sometimes the average number of hours worked by each worker per day, week, fortnight, or month. For purposes of international comparison it would be desirable to have all the data referring to the same unit of time, but for various reasons, such as the Saturday half-holiday, the variable number of days in the month, etc., and also owing to fluctuations in the movement of labour during any given period, it has been impossible to convert these series directly from one unit of time to another. On this account and owing to other differences of method the figures reproduced here can serve only to give a general indication of the position in each country and cannot be used for the purpose of making exact international comparisons.

For most of the countries mentioned fuller data for the period 1927-1936 may be found in the *Year-Book of Labour*

Statistics 1935-36 Notes on their sources and methods of compilation will be found in the same publication and in the *I L O Year-Book 1934-35*, Volume II *Labour Statistics*

ACTUAL HOURS OF WORK IN THE CHEMICAL INDUSTRY IN SELECTED COUNTRIES

Austria

Returns of the Chamber of Workers and Employers

Chemical Industry and Rubber Industry

	Date ¹	Percentage of workers working weekly		
		Under 48 hours	48 hours	Over 48 hours
1935	January	14.6	76.2	9.2
	April	9.9	81.5	8.6
	July	8.9	83.5	7.6
	October	6.8	87.1	6.1
1935	Average	10.1	82.1	7.8
1936	Average	11.3	80.0	8.5

¹ First week of the month

Estonia

Returns of the Central Statistical Office

Chemical Products

Date	Average hours of work per male worker per day ¹	
	1935	1936
1st half-year	8.06	8.12
2nd half-year	8.12	8.18
1st half-year	8.18	8.46
2nd half-year	8.46	

¹ Data limited to undertakings employing 20 or more workers

Finland

Returns of the Ministry of Social Affairs

Chemical Products

Date	Average hours of work per worker per fortnight
1935 (average)	92.1

France

Statistics of Labour Inspectors

Date ^a	Percentage of workers working weekly		
	Under 40 hours 40 hours	40 to under 45 hours 45 hours	45 hours and over
1. Chemical products :			
1935 : March	3.0	23.1	73.9
June	2.6	20.2	68.2
September	2.6	25.3	72.1
December	1.8	23.8	74.4
1936 : March	0.9	21.5	77.6
June	1.1	21.0	77.9
September	0.8	20.3	78.9
December ^b	0.6	20.9	78.5
1937 : January ^c	0.5	20.4	79.1
2. Rubber (including paper and card-board) :			
1935 : March	4.6	36.7	58.7
June	2.6	37.6	59.8
September	2.7	35.7	61.6
December	2.8	26.0	77.2
1936 : March	3.2	25.1	71.7
June	1.6	19.1	79.3
September	1.4	22.7	75.9
December	1.4	20.8	77.8
1937 : January	0.9	16.3	82.8

^a The figures relate to the first of the following month.

^b In undertakings where the 40-hour week was not applicable. The Decree fixing the methods of applying the 40-hour week in the chemical industries came into force on 4 March 1937.

Germany

Statistics of the Institute for Economic Research

Date	Average hours of work per worker per day	
	Chemical products	Rubber
1935 : March	7.25	7.11
June	7.53	7.73
September	7.19	7.15
December	7.68	7.21
1936 : March	7.48	7.15
June	7.56	7.33
September	7.51	7.04
December	8.09	7.91

Great Britain

Statistics published by the Ministry of Labour relating to a Week in October 1935

	Normal weekly hours of labour exclusive of meal-times	Actual hours worked taking into account normal hours, short-time and overtime
Heavy chemical manufacture (including dyes and tar and wood distillation)	47 9	49 1
Drugs and fine chemicals	46 3	47 1
Fertilisers, disinfectants, glue, size, etc	48 3	49 4
Other chemicals	48 6	50 5
Paint, colour, varnish, white lead, etc	46 6	48 0
Soaps, candles and glycerine	47 0	47 7
Blues and polishes	45 2	44 6
Ink manufacture	47 6	50 0
Matches	45 2	41 9

Hungary

Returns of the Royal Statistical Office

Chemical Products

Date	Average hours of work per worker per day
1934 (average)	9 07
1935 (average)	8 92

Italy

A — Returns of the Ministry of Corporations

	Date ¹	Percentage of workers working weekly			
		Under 40 hours	40 to under 45 hours	45 to 48 hours	Over 48 hours
1	Superphosphates				
	1935 June	30 9	58 8	6 1	4 2
	August	24 8	59 2	11 0	5 0
	1936 December	14 9	69 5	10 1	5 5
	1937 January	21 4	62 6	10 0	6 0
2	Artificial silk				
	1935 June	34 2	55 3	8 3	2 2
	August	34 1	51 7	11 4	2 8
	1936 December	19 3	63 5	11 8	5 4
	1937 January	21 9	58 0	14 4	5 7
3	Rubber				
	1935 June	38 2	42 1	12 5	7 2
	August	16 0	39 7	36 8	8 5
	1936 December	16 0	50 9	29 6	3 5
	1937 January	17 0	70 1	10 0	2 9

¹ Last weeks of the month

B — Returns of the Fascist General Confederation of Industries

Date	Average hours of work per worker per month		
	Chemical products	Artificial textile fibres	Rubber
1935 : March	175	171	166
June	169	163	169
August	173	166	163
1936 : October	176	171	166

Japan

A. — Returns of the Imperial Cabinet

Chemical Products

Date	Average hours of work per worker per day
1935 : March	9 17
June	9 15
September	9 07
December	9 10
1936 : March	9 15
June	9 20
September	9 17
October	9 11

B. — Returns of the Bank of Japan

Date	Average hours of work per worker per day					Cleaning powders, polishes toilet pre- parations, etc.
	Fertilisers	Matches	Rubber	Dyestuffs, paints, etc.	Drugs	
1935 : March	10 38	9 30	9 97	9 87	9 35	9 20
June	10 47	9 22	9 88	9 87	9 35	9 37
Sept	10 40	9 33	9 98	9 80	9 33	9 05
Dec	10 58	9 12	10 15	9 82	9 23	9 43
1936 : March	10 42	9 32	9 97	9 80	9 25	9 20
June	10 40	9 37	9 68	9 75	9 20	9 21
Sept.	10 45	9 30	9 93	9 70	9 35	9 25
Dec.	10 58	9 30	10 02	9 73	9 28	9 53

Poland

Returns of the Central Statistical Office

Chemical Products

Date	Average hours of work per worker per week
1935 : March	45 0
June	44 9
September	45 1
December	45 0
1936 : March	44 3
June	45 0
September	45 8
December	45 7
1937 : January	45 3

Sweden

Returns of the Social Board

Date	Average hours of work per worker per week				
	Fertilisers	Explosives	Matches	Rubber	Paints, oils, perfumes
1935 November	43.8	16.5	39.5	48.1	49.2
1936 November	47.8	17.6	39.5	47.9	48.1

Switzerland

Returns of the Federal Department of National Economy

Date	Percentage of workers working weekly		
	Under 48 hours	18 hours	Over 48 hours
1 Chemical products			
1934 1st quarter	24.0	74.0	2.0
2nd quarter	21.8	77.0	1.2
3rd quarter	25.9	73.5	0.6
2 Rubber, paper, and leather			
1934 1st quarter	33.2	66.8	0
2nd quarter	29.0	71.0	0
3rd quarter	31.3	68.7	0

United States

A — Statistics of the U S Bureau of Labor Statistics

Date	Average hours of work per worker per week					
	Chemicals	Fertilisers	Petroleum refining	Explosives	Rayon and allied products	Cotton-seed oil
1935 March	40.0	34.5	35.0	36.4	37.6	44.6
June	38.9	33.6	34.6	34.4	37.8	39.5
Sept	39.2	36.2	35.7	34.1	38.6	48.1
Dec	40.2	36.4	36.5	36.5	38.3	48.8
1936 March	40.7	40.4	36.2	40.8	38.8	45.1
June	40.7	39.0	36.2	39.1	38.8	43.5
Sept	40.1	42.2	35.1	39.0	36.2	50.8
Nov	41.6	39.3	36.5	41.3	37.1	53.6

Date	Average hours of work per worker per week					
	Soap	Rubbers and inner tubes	Boots and shoes	Other goods	Paints and varnishes	Druggist's preparations
1935 March	38.8	32.4	36.4	37.2	39.3	38.7
June	38.5	30.9	33.6	35.9	40.3	38.5
Sept	38.8	32.1	37.0	38.9	39.3	39.0
Dec	38.8	35.8	40.1	39.4	40.6	39.1
1936 March	39.3	35.5	38.0	39.3	41.2	40.2
June	39.3	35.9	39.4	40.5	43.3	39.0
Sept	38.5	35.4	37.8	40.3	41.1	39.4
Nov	39.9	36.1	40.8	41.8	42.2	40.4

B — *Statistics of the National Industrial Conference Board*

Date	Average hours of work per worker per week		
	Chemicals	Paints and varnishes	Rubber
1935 March	38.3	39.8	31.7
June	38.8	41.0	32.3
September	40.9	39.8	32.9
December	39.8	40.6	36.4
1936 : March	39.6	41.0	36.5
June	39.6	47.2	37.3
September	40.2	44.8	37.0
December	40.6	45.5	36.9
1937 . January	40.4	45.6	36.0

IV. — GENERAL SURVEY OF PROBLEMS ARISING OUT OF INTERNATIONAL REGULATIONS

The Conference will first have to decide whether the reduction of hours of work in the chemical industry should be dealt with by international regulations at the present time. If so, it will next have to consider, in accordance with the decision of the Governing Body, whether the ordinary double-discussion procedure should be followed or whether the subject should be dealt with by a single and final discussion, with a view to the immediate drafting of regulations.

In order to enable the Conference to adopt either of these procedures, with a full knowledge of their implications, the Governing Body instructed the Office to prepare (1) a list of points on which Governments should be consulted if the Conference favours a double discussion, and (2) a proposed international Draft Convention as a basis for discussion if the Conference decides on the second alternative.

In this chapter the points on which Governments should be consulted are discussed, with particular reference to the various national regulations special to the chemical industry.

1. Desirability and Nature of International Regulations

As was stated in the introduction to this Report, the Nineteenth Session of the International Labour Conference in 1935 adopted a Draft Convention, according to which every Member of the International Labour Organisation which ratifies the Convention undertakes to apply the principle of the 40-hour week to classes of employment in accordance with the detailed provisions to be prescribed by such separate Conventions as are ratified by that Member. In conformity with this procedure, the Conference will have to consider at its various sessions the desirability of adopting special Conventions for particular classes of employment. The choice of the classes of employment on which the Conference is to take a decision is the result of proposals either made directly by the Governing Body or put forward at the Conference and subsequently approved by the Governing Body. The latter is the case for the chemical industry, which formed the subject of a resolution adopted by

the Nineteenth Session of the Conference and reproduced at the outset of this Report.

As early as September 1934, when the Governing Body was considering the list of the first industries in which the 40-hour week might be introduced, its attention had been drawn to the chemical industry. The arguments in favour of an early, if not immediate, selection of this industry were set forth in detail in the above-mentioned resolution, adopted by the Nineteenth Session of the Conference. Acting on this resolution, the Governing Body decided to place the question of the reduction of hours of work in the chemical industry on the Agenda of the Twenty-third Session of the Conference.

It was stated above that the general Convention to limit hours of work to 40 in the week provided that this principle should be applied to various classes of employment by *separate Conventions*. It follows that the proposed regulations for the chemical industry should presumably take the form of a Draft Convention. But in the first place Governments should be consulted on the question whether they favour the adoption of international regulations for reducing hours of work in this industry.

2 Scope

A — UNDERTAKINGS COVERED

(a) *Determination of the Products deemed to be Chemical Products for the Purposes of the International Regulations*

As indicated in the part of this Report dealing with the nature and organisation of the work in the chemical industry, it is difficult to delimit the industry exactly with a view to drawing up regulations on hours of work exclusively applicable to it.

From the strictly technical point of view, the chemical industry includes all industries and branches of industries engaged in a process of chemical transformation. So regarded, it covers a very wide field and includes very numerous branches. It comprises a large number of industries which vary widely in character, although they are often interdependent.

As a result of industrial and economic evolution, some of these branches have become definitely specialised industries

which, in practice, are no longer regarded as belonging to the chemical industry but form independent groups. This applies in particular to the metal industry and the manufacture of lime, cement, plaster, tiles, bricks, pottery, glass, and paper.

Other branches seem definitely attached to groups of industries distinct from the chemical industry. This applies to the manufacture of wines and liqueurs, edible oils and fats, and artificial mineral and aerated waters and the preparation of tobacco, which are usually or often classed with the food industries, to the manufacture of sugar, which is usually classed with the same industries, although in fact it may form a separate industry, and to the manufacture of gas for lighting purposes, which is considered as a public service in the same way as water and electricity services.

Other branches again are regarded in certain countries as still belonging to the chemical industry, while elsewhere they are attached to other manufacturing industries. This applies, for example, to the production of artificial silk thread.

Certain industries of a chemical nature are closely bound up with industries for the extraction of minerals, such as the potash, phosphates, and oil industries, while others are connected with manufacturing industries, such as the rubber, metal alloys, and electro-chemical industries, to which may be added that of preparing basic slag for use as a fertiliser.

Lastly, there are industries which combine in different degrees technological processes belonging to the chemical industry and to manufacturing industries. This is the case with the pencil, linoleum, oilcloth, artificial leather, tarred felt, celluloid, plastic substances, etc., industries.

In addition, it must be said that a study of the scope of application of national laws and regulations concerning hours of work gives little help in arriving at a definition of the chemical industry. Most of the legislation in question relates to industry in general and is not concerned with defining the chemical industry. Some of it contains special provisions relating not to the chemical industry as a whole but to specific chemical industries, and in this case it is considered sufficient to give a list of the industries so covered.

Among the countries with special statutory regulations applicable to processes in the chemical industry, France alone has regulations for the whole of the industry, the scope being defined by an enumeration of industries and kinds of manufacture.

This list may be useful as providing a suggestion for dealing with the problem now under consideration (see p 24)

The other definitions of the chemical industry, in particular those prepared for the purposes of various national statistics (population census, census of production, etc), vary from one country to another. All of them are similarly founded on more or less detailed lists of industries or kinds of manufacture. It should be noted, however, that these lists are intended to meet other needs than those met by one drawn up in connection with the regulation of hours of work. Thus in France the kinds of manufacture classified under the chemical industry in the statistics for the population census do not correspond exactly to those in the list drawn up for determining the scope of the Decree governing hours of work in the chemical industry. The tobacco industry, for instance, is classed as a chemical industry in the population statistics but does not appear in the Decree, while the Decree includes the rubber and substitutes industry, which in the population statistics forms a separate group with paper and cardboard.

These lists are far from agreeing with each other and the only practical way in which they can be used is to pick out those industries or kinds of manufacture which appear in all of them, or at any rate in most of them, and can without serious objection be regarded as part of the chemical industry for purposes of international regulation.

Two methods can be used for defining the chemical industry. One is purely scientific and theoretical and is based on processes of a specifically chemical character. The other is empirical and closer to the facts, being based on the products manufactured.

Processes of a specifically chemical character are very numerous and cannot all be mentioned here. Among the principal are oxidation, reduction, polymerisation, saponification, solution, fermentation, nitration, hydrolysis, etc. It is clear that, if all operations or kinds of manufacture involving such processes were to be included within the limits of the chemical industry, these limits would be much too wide and would comprise most forms of industrial activity, so that the desired solution would not be obtained.

In practice, therefore, it seems that only the second method can be used. It consists in enumerating the products which are made by processes considered to belong to the chemical industry in the ordinary sense. Obviously such an enumer-

ation can be only empirical and conventional. It could include, in the first place, a certain number of industries which are to be found in most of the lists drawn up for the definition of the chemical industry and which form the nucleus of the industry, and secondly, a certain number of other industries which in the national statistics are classified under various heads but which, in view of the technical characteristics of the processes performed, might be taken to belong to the chemical industry.

With a view to such a definition of the chemical industry, the Office suggests as a basis for discussion a list of products and processes which it has prepared in the light of its own studies and especially of the conclusions of the Preparatory Technical Tripartite Meeting for the Chemical Industry (see Appendix). Although it rests on technical considerations, this delimitation must in no way be regarded as a scientific definition of the chemical industry. It aims merely at grouping a relatively large number of branches of the industry which, in the opinion of many of the experts attending the Preparatory Technical Tripartite Meeting, could for technical and economic reasons be used as a basis for the drafting of a Convention to reduce hours of work in the chemical industry.

The list suggested by the Office includes the manufacture of the following products

- Acids, alkalis, and salts,
- Chlorine and its derivatives,
- Sulphur, phosphorus, arsenic, antimony, iodine, bromine, fluorine, and their compounds,
- Alumina (Al_2O_3) and other chemical derivatives of aluminium,
- Cyanides,
- Calcium carbide,
- Nitrogenous compounds,
- Artificial fertilisers, chemical or organic,
- Products of the distillation of coal tar,
- Explosives,
- Matches,
- Compressed, liquefied, and dissolved gases,
- Artificial carbon,
- Synthetic precious stones,
- Products of the refining of mineral oil,
- Organic fats other than edible fats and oils, soap, candles, glycerine,
- Industrial alcohol,
- Products of the distillation of wood,
- Dyeing and tanning extracts,
- Resin, turpentine, and camphor,
- Rubber products,
- Starch,

Glue and gelatine,
Intermediate organic products such as ethers and acetic formic
oxalic tartaric and citric acids,
Chemical products used for pharmaceutical purposes
Chemical photographic products,
Perfumes and other aromatic substances
Organic and inorganic dyestuffs,
Lacquers varnishes paints, pigments and inks,
Chemical products for cleaning and polishing
Radio-active products

In considering this list it should be remembered that the Preparatory Technical Tripartite Meeting did not consider it advisable to include the following products : tobacco (preparation), edible oils and fats, wines and liqueurs, artificial mineral and aerated waters, celluloid, linoleum and similar substances, oilcloth, artificial leather, asphalt and tarred felt, abrasive products, basic slag and pencils. Further, in the opinion of the experts attending the Meeting, synthetic plastic substances such as bakelite and galalith may be held to be covered by the heading ' resins '. The Office suggests however, that this point might with advantage be made clear by adding the following item : " synthetic resins and other plastic substances. As regards the possible inclusion of gas for lighting purposes in the proposed list, the opinion of the Meeting was divided, as appears from the report and for this reason the Office has considered it inadvisable to suggest placing this product on the list. Moreover, it should be noted that since the meeting took place objections have been submitted in regard to the inclusion of certain products in the above list especially industrial alcohol and starch.

The chemical processes involved in the manufacture of artificial silk or other synthetic fibre which in the opinion of the Meeting belonged to the chemical industry have been left out of the above list. The Office has instead had occasion to include these processes in the scope of the proposed Draft Convention on the reduction of hours of work in the textile industry, which is to be discussed by the Conference at its forthcoming Session.

The manner in which the various products selected above are grouped or classified also varies very widely in different countries. But this question would not appear to be very important; the essential point is that the list by means of which the chemical industry is delimited should be presented in as clear a way as possible that it should at the same time be very precise in its terms, and that it should not give rise to difficulties of interpretation.

It therefore becomes necessary to consult each Government on the processes or products which it considers should be included in the chemical industry for the purpose in view. If they take the above list as a basis, the Governments could say whether they consider it to be satisfactory, or whether the wording of the items or their order should be changed, or whether some of them should be removed or others added.

(b) *Determination of the Undertakings or Branches thereof deemed to belong to the Chemical Industry for the Purposes of the International Regulations*

It is clear that it is not sufficient to base the list on the manufactured product only, it must be supplemented on the basis of the undertakings. In fact, undertakings form the entities which, taken together, provide the concrete basis of the chemical industry. The industry should therefore be delimited on the basis of the undertakings or branches thereof engaged in the manufacture of chemical products.

The definition of the chemical industry on this basis of the undertakings or branches thereof where the products enumerated above are manufactured raises a certain number of points on which it becomes necessary to consult Governments.

In the first place, as the enumeration of chemical products applies mainly to categories of products, doubts may arise in the case of certain products whether the undertakings manufacturing them should be subject to the international regulations. Further, for some chemical products the series of processes which finally results in the product often begins with processes which belong to mining or agriculture. This is true, for instance, for fertilisers, sulphur, mineral oils, vegetable oils, rubber, perfumes, etc. Obviously, the processes connected with mining or agriculture cannot be considered as forming part of the chemical industry, so that it becomes necessary to draw the line between the undertakings that engage in these processes and those belonging to the chemical industry proper.

All these cases of delimitation between the chemical industry and other industries appear to lie within the competence of the national authorities. When suitable solutions have been found the limits of the chemical industry will have been established.

But within these limits special cases will arise. In practice, there will be two kinds of undertakings: those which engage

solely or mainly in the manufacture of chemical products, and those in which the manufacture of such products forms only a subsidiary part of their activity.

Undertakings engaged solely or mainly in Processes belonging to the Chemical Industry

Undertakings which engage solely or mainly in the manufacture of chemical products should clearly be subject to the regulations

In this connection, reference should be made to the particular case of certain large undertakings in the industry which, apart from their factories properly so called with their various departments — management, manufacture, etc — possess central offices (head offices), commercial offices, agencies, branches, etc, which are situated in premises clearly separate and distant from those of the factories, have their own staff, are independent in their organisation and working, and have no direct technical connection with the actual manufacture of the chemical products

The special situation of these undertakings makes it necessary to state clearly what, for the purposes of the regulations, is meant by “undertakings” or “establishments”, these two terms often being employed indifferently

It is in fact necessary to distinguish between the undertaking or establishment regarded as a technical unit, which forms a definitely localised whole, and the undertaking or establishment regarded as an economic unit, the various parts of which may be scattered

If the undertaking or establishment regarded as a technical unit and that regarded as an economic unit occupy the same premises or set of premises, no special question arises, and if the undertaking or establishment is of the nature of a chemical undertaking or establishment, all its departments must be made subject to the international regulations, whether they engage in manufacture proper or in administration, book-keeping, etc.

But if the undertaking or establishment regarded as an economic unit consists of various parts which occupy premises or sets of premises that are clearly separate and distant from each other, and these parts form as many independent groups, it seems that only those parts should be considered to belong to the chemical industry which engage in the manufacture of chemical products, together with the departments essential

for their working. The other parts, where only office work or commercial business is carried on, should be left outside the proposed regulations

Undertakings not belonging to the Chemical Industry, Certain Branches of which are engaged solely or mainly in Processes belonging to the Chemical Industry

The special case to be considered here is that of the manufacture of chemical products in undertakings which do not belong to the chemical industry because their main activity cannot be classified under this heading. Such manufacture may be carried out in branches clearly distinct from the other branches of the undertakings, having their own organisation and premises, and their separate staff, and in fact enjoying a certain degree of autonomy within the undertaking. This is true, for instance, of chemical products which, once obtained, are applied or used in the same undertaking by manufacturing industries that have nothing to do with the chemical industry.

Similarly, it should also be noted that in the course of various kinds of industrial production, chemical products may be obtained at a particular stage in the form of by-products or subsidiary products, although elsewhere they are the principal product manufactured. This may be the case with sulphuric acid obtained during the metallurgy of copper and zinc.

In these cases it seems that the branches of an undertaking not belonging to the chemical industry which engage solely or mainly in the manufacture of chemical products might be considered to belong to the chemical industry, since their character is in fact that of a true chemical undertaking. It is clear, however, that these are special cases, for which the international regulations can lay down only a principle, more especially as they may vary very much in character according to country and date, as was brought out by the discussion at the Preparatory Technical Tripartite Meeting.

It is therefore certain that in practice the international regulations cannot provide for a complete definition of the chemical industry. It thus seems desirable that for these regulations, as for the other Draft Conventions already adopted, provision should be made for the competent national authority to determine in doubtful cases, in the manner it considers best, whether a particular undertaking or branch of an undertaking

should or should not be covered by the international regulations. Before taking a decision the competent national authority might be required to consult the employers' and workers' organisations concerned.

Public and Private Undertakings

The undertakings deemed to be chemical undertakings may be run by a public authority or by a private individual or enterprise. In the present connection it does not seem necessary to draw a distinction between public and private undertakings, since both should be subject to the same regulations. The national laws and regulations generally apply to both categories. Similarly, the international Conventions on hours of work so far adopted do not provide for discrimination between public and private undertakings.

There appear to be no social reasons justifying such discrimination. From the economic point of view — except in the case of a State monopoly — it would be unsatisfactory, not to say dangerous, if two undertakings manufacturing the same product were to be subject to different regulations. Moreover, it would be difficult to justify the exclusion of an undertaking from the scope of the industry because it is run by a public institution, while other producers would be under an obligation to comply with the international regulations.

c Discrimination of the Undertakings which may possibly be exempted from the Application of the International Regulations

There is finally a category of undertakings for which the national and international hours of work regulations have laid down a distinction. These are the undertakings in which only members of the employer's family are employed. The family nature of such undertakings and the difficulty, not to say impossibility, so far met with in supervising them effectively have meant that many of the national laws and regulations leave them outside their scope of application. In the international field they are excluded from the Conventions on hours of work in industry 1919, in commerce and offices 1921, and in public works 1926. The reason why they are not mentioned in the Conventions concerning hours of work in agriculture

mines (1931, revised in 1935), in automatic sheet-glass works (1934), and in glass-bottle works (1935) is that such family undertakings are not to be found in these industries. That does not appear to be the case, however, in the chemical industry, and it is therefore desirable to ask Governments whether they consider that the competent authority in each country should exempt, or at least have the right to exempt, undertakings in which only members of the employer's family are employed.

B — PERSONS COVERED

With regard to staff, it is necessary to consider whether all the categories of workers employed in the undertakings covered should be subject to the international regulations, or whether some of them may be excluded under national regulations.

(a) *Persons occupying Positions of Management, Trust or Supervision*

In this connection it may be remembered that the Draft Convention limiting the working week in industrial undertakings to 48 hours (1919) exempts persons holding positions of supervision or management or employed in a confidential capacity. The Convention on hours of work in commerce and offices (1930) leaves it open to the competent authority in each country to exempt persons occupying positions of management or employed in a confidential capacity. The Convention on hours of work in coal mines (1931, revised in 1935) exempts persons engaged in supervision or management, who do not ordinarily perform manual work, a restriction that was introduced in order that foremen should not be excluded as belonging to the supervisory staff. The Convention concerning the reduction of hours of work on public works adopted at the Twentieth Session of the Conference restricts the competent authority's possibility to make an exception in the case of persons occupying positions of management who do not ordinarily perform manual work. The proposed Draft Conventions prepared by the competent Committees of the Twentieth Session of the Conference included a similar provision, except that relating to coal mines, which retained the formula adopted for the Draft Convention for coal mines of 1931, revised in 1935. It may also be remem-

bered that the Convention concerning employment of women during the night (revised in 1934) provides for the exclusion of women "holding responsible positions of management who are not ordinarily engaged in manual work."

This question of the persons who may be exempted from the regulations has already been the subject of frequent discussion in the Committees of the Conference, but it is nevertheless necessary to return to it, with reference, on the one hand, to the provisions on the subject contained in the national regulations and on the other, to the fact that the end in view is a reduction of the working week to 40 hours.

As regards the first of these considerations, it will be found that a considerable number of the national hours-of-work laws and regulations expressly exclude certain categories of persons, such as heads of undertakings, managers, superintendents, authorised agents, accredited representatives, technical managers of industrial departments, engineers, operating managers, specialised technicians, foremen, caretakers, door-keepers, watchmen, fire brigade staff, persons employed in commercial and technical offices, book-keepers, cashiers, etc.

In some fifteen countries the laws do not define the categories of persons excluded so exactly, but merely exclude persons employed in positions of management, supervision or trust.

As a matter of fact, most of the categories of persons expressly indicated above may be regarded as holding, according to circumstances, a position of management, of supervision, or of trust.

Some laws go even further and enumerate the persons covered by these general terms. Thus, the Belgian legislation treats the following as persons in a position of trust whatever the undertaking: Managers, under-managers, factors and works superintendents; authorised agents and holders of powers of attorney, managing or private secretaries and the staff engaged exclusively in the secretarial department, engineers; chiefs and assistant chiefs of managing commercial or technical services, chief chemists, laboratory directors and their assistants; cashiers; head foremen, works foremen in so far as they can be deemed identical with head foremen, departmental managers, shop foremen, and head storekeepers, stable foremen, foremen, enginemen, mechanics, stokers, electricians, and fitters, foremen repairers, maintenance workers, loaders and transport workers, persons in charge of gas generators; checkers at receiving offices, staff responsible for medical services, private

watchmen, night watchmen, caretakers, doorkeepers, and time-keepers. It will be seen that this list consists of persons who might also be considered as holding positions of management or supervision. A similar provision is to be found in the Rumanian regulations.

The Italian hours of work regulations of 1923 exclude occupations which, owing to their nature or the circumstances of the case, require only intermittent work or mere being in attendance or watching. These occupations are defined by Decrees, but the lists given do not allow of drawing a clear distinction between the different categories of occupations exempted.

(b) *Commercial Travellers*

There is yet another category of persons who are excluded from the scope of certain hours-of-work laws and regulations, namely, commercial travellers. It is clear that there can be a question only of commercial travellers on the paid staff of the undertaking and not of those who work on their own account, placing the products of one or more firms. However this may be, the hours of these workers lend themselves neither to limitation nor to supervision, so that there are serious reasons for excluding this category.

When international regulations on the 40-hour week are drawn up, it is necessary to know the opinion of Governments, especially of those which have introduced the 40-hour week, in regard to the above-mentioned categories of workers, and, if need be, of other categories.

It should be noted, however, that it would be desirable to limit the exemptions to persons whose hours of work it is impossible or at least very difficult to limit owing to their special responsibilities or qualifications, and to refer in this connection to existing custom and usage.

3. Definition of Hours of Work

As regards the desirability, first, of introducing a definition of hours of work in the international regulations, and secondly of making such a definition, reference may be made to the precedents created by the Draft Convention on hours of work in commerce and offices and that applying the principle of the

40-hour week to public works financed or subsidised by Governments. It must also be borne in mind that in the proposed Draft Conventions put forward by the Committees of the Twentieth Session of the Conference concerning building and civil engineering, iron and steel, and the textile industry respectively, a definition of hours of work was inserted, and that in every respect it was identical with that contained in the two Draft Conventions actually adopted. The Committee on hours of work in the textile industry however, although it accepted that definition, pointed out in its report that short intervals during which the worker may not actually be working, but is nevertheless not free to dispose of his own time and movements, should be included in the reckoning of hours of work.

In the chemical industry, the definition of hours of work raises no special problems except perhaps the question of the time allowed the workers for washing. But this question appears to lie outside the scope of international regulations, and it would be for the national regulations, which could take all such contingencies into account, to provide a suitable solution. In these conditions, and provided no new circumstance arises, the definition of hours of work hitherto accepted might be retained. It is as follows:

“ The term ‘ hours of work ’ means the time during which the persons employed are at the disposal of the employer, it does not include rest periods during which the persons employed are not at the disposal of the employer ”

Governments might be asked whether they consider that the international regulations should include a definition of hours of work and, if so, whether the above definition may be applied to the chemical industry or whether they have any other suggestions to put forward.

4 Limitation of Normal Hours of Work

The general Convention concerning the reduction of hours of work (1935) laid down the principle of a 40-hour week, but intentionally left it to separate Conventions to fix the methods of applying this principle with reference to the conditions prevailing in particular industries.

A — BASIS FOR DETERMINATION OF THE WORKING WEEK

The regulation of hours of work in the chemical industry raises from the outset two questions connected with the actual organisation of the work. There are on the one hand processes carried on by day only by a single shift and processes carried on by two or even three shifts but suspended on Sundays, all of which processes will be described here as non-continuous, and on the other hand there are necessarily continuous processes not suspended on Sundays.

(a) *Non-Continuous Processes*

For these processes there are two methods of applying the principle of the 40-hour week. It may be applied either strictly, that is to say, in each week hours must invariably amount to 40, or more flexibly, by calculating the 40 hours not for each week but as an average over a specified period.

Governments will in the first place have to give their opinion and make their choice in regard to these two methods of applying the 40-hour week.

(b) *Necessarily Continuous Processes not suspended on Sundays*

As regards necessarily continuous processes not suspended on Sundays, that is to say, processes which, owing to the nature of the work, must be carried on continuously without a break at any time of the day, night or week, it seems that, instead of the 40-hour week, preference should be given to a 42-hour week, necessarily calculated as an average over several weeks. The average 42-hour week lends itself perfectly to the system of four shifts of 6 or 8 hours and to the introduction of the various systems of rotation that are needed for the periodical change-over of shifts with a view to a fair distribution of day shifts and night shifts and for the due observance of the weekly rest.

The average 42-hour week is allowed for continuous processes in the two Draft Conventions for the glass industry and in that for public works. It was also prescribed for continuous processes in the proposed Draft Conventions submit-

ted by the Committees of the Twentieth Session of the Conference for iron and steel, building and civil engineering, and coal mines respectively

In this connection the question arises as to which processes are to be considered to be necessarily continuous

The enumeration of these processes in the actual text of the proposed regulations would raise a serious difficulty. According to the state of industrial technique in the different countries, divergent opinions would probably be expressed as to which processes should be deemed to be continuous. Moreover, owing to the development of technique itself there would be a risk that processes which are now necessarily continuous would be no longer be so in the future, and vice versa.

Another solution would be to leave it to the competent authority of each country to decide in which continuous processes the workers might be employed for an average of 42 hours in the week, the list of such processes being communicated to the International Labour Office. It may be recalled here that the Hours of Work (Industry) Convention, 1919, does not define these processes but provides that each Government shall communicate to the International Labour Office a list of the processes which are classified as being necessarily continuous in character. Similarly the Draft Convention of 1936 concerning the reduction of hours of work on public works leaves it to the competent authority in each State to determine which are continuous operations, after consultation with the organisations of employers and workers concerned, and it prescribes that the annual reports submitted by States Members upon the application of the Convention shall include full information concerning these processes

Governments should therefore be consulted on the principle of the average 42-hour week for necessarily continuous processes. They should also be asked at the same time whether they consider that the international regulations should define these continuous processes or whether they hold that this task should be left to the competent authority in each country

B — LIMITATION OF HOURS OF WORK TO 40 IN EACH WEEK

This method is simple to apply and easy to supervise. Whatever the working day may be, the total hours worked during the week by any worker may not exceed 40

It seems that the working day should be fixed either at 6 hours 40 minutes for each of the six weekdays, or — and this will no doubt be more usual — at 8 hours during five days. Other arrangements are possible, however, which might require of the worker an excessively long working day, involving some risks to him. To prevent such abuses the most direct means lies in prescribing a maximum limit for the working day.

It is likely that the daily maximum limit fixed in practice will not exceed that of 9 hours established by Article 2 of the Hours of Work (Industry) Convention, 1919. Article 5 of this Convention, however, provides that the limits fixed in Article 2 may be exceeded in exceptional cases where it is recognised that they cannot be applied, provided, however, that the average number of hours worked per week does not exceed 48.

The international regulations now under consideration may similarly have to meet really exceptional circumstances, such as the difficulty of reaching the undertaking owing to its remoteness from an urban centre or inadequate means of communication, circumstances in which it would be desirable to concentrate the week's work to a shorter period. This may similarly be desirable in the case of a rural population from which industrial workers are drawn who also engage in agricultural work. As regards these very special cases, the question arises whether it is better to fix a relatively high daily maximum limit, which would apply in all circumstances, or, on the contrary, to prescribe a lower maximum limit, which would form the general rule, and to provide for its being exceeded in genuinely exceptional cases. The determination of the cases — in general, they will be individual — in which the exceeding of the limit might be authorised and of the maximum amount by which it might be exceeded should apparently be left to the competent national authority, which alone can have a full knowledge of the facts and can adopt the most satisfactory methods.

All these are points on which Governments should be consulted.

There remains a question calling for special consideration, namely, that of making up lost time. Several national regulations, and in particular the French Decree applying the 40-hour week in the chemical industry, provide for the making-up of time lost owing to a collective suspension of work in the undertaking. The causes of suspension giving a right to make up such lost time that are most frequently mentioned are accidents, actual or

threatened, or cases of *force majeure*, accidents to material, interruption of motive power, bad weather; shortage of material or means of transport, deterioration of raw materials, natural catastrophes, the closing of undertakings or workplaces on certain public holidays, normal restriction of production during certain seasons.

In most cases the making-up of lost time must take place within a specified period, and a maximum is fixed for the consequent extension of daily and weekly hours

In practice the question of making up lost time arises only in the present case, namely, that of limiting working hours to 40 in each week, for when hours are calculated as an average, lost time may be made up without further complication, since the provisions concerning the period for calculating the average and the daily and weekly maxima usually allow sufficient scope. On the other hand, when hours are fixed uniformly for each week, the facilities are much smaller. It rarely happens that lost time can be made up during the same week by extending hours on the following days. As a rule it must be made up during one of the following weeks, and in this case the weekly limit of 40 hours will necessarily be exceeded. Consequently, if it is desired to permit the making-up of lost time it will be necessary, if hours are limited to 40 in each week, to make special provisions

As this question acquires particular importance when regulations are introduced reducing the number of hours worked Governments might be consulted on the desirability of including in the Convention provisions for allowing the making-up of lost time when hours of work are strictly limited in the day and in the week. At the same time they should be required to give their opinion on the reasons justifying the making-up of lost time, the period within which it must be made up, and the maximum extension of the working day and working week allowed. It would also be useful to know whether, in this connection, they wish the international regulations to include formal provisions, or whether they prefer these provisions to be established by national regulations

C — LIMITATION ON THE BASIS OF AN AVERAGE WORKING WEEK

The flexibility of this second method makes it easier for undertakings to adapt themselves to fluctuations in production and thus ensures greater stability for the staff. It may also be remembered that this method of calculation is indispensable

in the case of necessarily continuous processes (the 42-hour week) and affords great facilities for making up time lost owing to a collective suspension of work

On the other hand, the supervision of the hours worked by each worker becomes more difficult, for the number of hours to be taken into account in the calculation is spread over several weeks. And the longer the period over which the average is calculated the greater will be these difficulties of supervision. It therefore seems indispensable to fix a maximum limit for the period over which the average may be calculated. In practice the national regulations that allow this system of averaging hours, especially for the establishment of the 40-hour week or for the regulation of necessarily continuous processes, generally fix the number of weeks over which the average may be calculated.

In the case at present under consideration it may be asked whether the maximum limit for the period taken as a basis of calculation should be fixed in the international regulations, or whether this task could be left to national regulations without a risk of leading to considerable divergences of application in the different countries. Whatever the method adopted, it should be noted that the length of the period decided on should be such as to allow of organising the rotation of shifts for necessarily continuous processes. Otherwise two periods would have to be fixed: one for continuous processes, the other for necessarily continuous processes. As regards the latter, it may be noted that the French Decree fixing the methods of applying the 40-hour week in the chemical industry provides that the working week averaged over a period of 12 weeks may be 42 hours.

A sufficiently long period would also provide substantial facilities for making up time lost owing to a collective suspension of work. It may be mentioned that the aforesaid French Decree provides that the time-limit for making up lost time may be 50 days following the resumption of work if the stoppage is for not more than a week. In the case of stoppages exceeding a week, this limit of 50 days may be exceeded, subject to a permit from the labour inspector issued after consultation with the employers' and workers' organisations concerned. On the other hand no time-limit is fixed for making up time lost owing to the normal slowing-down of work during certain seasons.

When the working week is calculated as an average over a specified period the problem of the maximum daily limit also

arises, as well as that of the maximum weekly limit. If there were no provisions in this respect, it might be feared that while the employers and workers concerned respected the average working week of 40 hours, they might be tempted for various reasons to extend working hours unreasonably on certain days or weeks. It therefore seems that the limitation of the maximum working day and working week would be an effective method of preventing abuse of any possibility of spreading hours that may be authorised, subject to the average of 40 hours a week.

As regards the maximum working day, it has been stated above that the limit of 9 hours might be found acceptable.

As regards the week, the limits that appear reasonable are those provided in the Hours of Work (Industry) Convention of 1919, namely 48 in the week (56 for necessarily continuous processes).

Further, as mentioned above in connection with the maximum daily limit, when hours are fixed strictly at 40 in each week, it is also possible to provide for very exceptional circumstances when it may be necessary to exceed the maximum limits fixed while respecting the total number of hours normally corresponding to the period over which the average is calculated. The possible methods are the same as those already mentioned in regard to the exceeding of the maximum daily limit. Here, too, it can only be a question of individual cases, which must clearly be dealt with by national regulations.

In regard to the method of limiting hours of work on the basis of an average working week, it may be mentioned that the Draft Convention concerning the reduction of hours of work on public works (1936) adopted in application of the Convention laying down the principle of the 40-hour week (1935), fixes hours of work at an average of 40 in the week. It provides that the number of weeks over which this average may be calculated and the maximum number of hours that may be worked in any week shall be determined in each country by the competent authority after consultation with the organisations of employers and workers concerned where such exist. This Draft Convention does not contemplate a maximum limit for the working day. Similar provisions were contained in the proposed Draft Conventions submitted by the Committees of the Twentieth Session of the Conference for building and civil engineering and for iron and steel, and were also proposed for retting operations in the textile industry. For other operations in the textile

industry, on the contrary, the hours contemplated in the proposed Draft Convention were strictly limited to 40 in the week

It will be for Governments to state their views, and should they decide in favour of limiting hours to an average of 40 in the week, it seems necessary to consult them on the questions of the period for calculating the average, the daily and weekly maximum limits, and the extent, if any, to which the limits may be exceeded. Finally, it would also be desirable to have their opinion on the part that should be played by the international and national regulations respectively in fixing the proposed standards

5. Exceptions

The general national regulations on hours of work provide for exceptions to the normal hours in the form of extensions of hours when necessitated for various reasons. The regulations special to the chemical industry refer frequently either explicitly or implicitly to the general regulations as regards the reasons for extension, the amount of extension allowed, the formalities to be fulfilled in order to obtain a permit, and overtime pay

The circumstances or reasons which under the various national regulations justify exceptions to the rules concerning hours of work in the chemical industry may be classified into three groups

A — GENERAL EXCEPTIONS FOR CERTAIN PROCESSES OR CERTAIN CATEGORIES OF PERSONS

The first group comprises exceptions of a general and permanent character which are needed to carry out certain kinds of work or to engage in certain occupations. These kinds of work and occupations are the following :

Preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the undertaking branch or shift ;

Occupations which by their nature involve long periods of inaction during which the persons in question have to display neither physical activity nor sustained attention or remain at their posts only to reply to possible calls ,

Work which for technical reasons cannot be interrupted at will, or must be carried on in order to prevent the deterioration of raw materials or manufactured goods ,

Work in connection with the transport delivery loading or unloading of goods ,

Work connected with the introduction of any new process or the taking into use of any new appliances or machinery.

Employers would obviously be automatically entitled to make use of these exceptions, within the limits fixed, without fulfilling any formalities

The amount of the extension needed for each of the kinds of work or occupations mentioned above will depend on circumstances which vary markedly from one country to another and even from one undertaking to another, and which it is therefore very difficult to know and assess for the purpose of drawing up an international rule. Any extension that might be fixed by the international regulations would run the risk of being insufficient in one case and excessive in another. For this reason it seems preferable to leave it to national regulations to fix limits corresponding to the actual needs of undertakings

Since these extensions are permanent in character, the question of remuneration is settled in the contract of employment itself ; for when the normal wage is fixed account is taken of the obligations imposed on the workers in question, which include hours in conformity with the authorised exception

B — EXCEPTIONS IN EXTRAORDINARY CIRCUMSTANCES

The second group of exceptions relates to certain extraordinary circumstances, such as

Accident, actual or threatened, or urgent work to be done to machinery or plant, or cases of *force majeure* ,

The need to make good the unforeseen absence of one or more members of a shift

The first of these exceptions is allowed in most of the national regulations. The second is needed for all cases in which the work is organised in shifts and might suffer if one or more members of the shift required to carry it out are absent

Considering the nature of these exceptions, it seems that it should be possible to have recourse to them without any previous formality, since it is to the interest of both employers

and workers that the necessary work should be carried out as quickly as possible. The employer might, however, be required to inform the competent authority at once of any overtime worked in excess of the normal hours and of the reasons for such overtime.

As regards the amount of the extension, it should be limited to the period strictly needed for reducing the interference with the ordinary working of the undertaking to a minimum.

With respect to remuneration, it should be remembered that hours worked in virtue of these exceptions undoubtedly form an extension of the normal hours fixed for the persons concerned. It is therefore reasonable that these hours in excess of the normal should be paid for. On the other hand, the question of increasing the rate of pay for these hours is a more controversial one. Here it should be noted that the employer derives no direct profit from this overtime, as may be the case when overtime is worked with a view to increasing production. It merely reduces to a minimum the losses caused by the interference with the working of the undertaking. The Conventions already adopted on hours of work contain no provisions on this subject, except that on coal mines, which provides for the payment of overtime worked in virtue of the first of these exceptions at not less than one and a quarter times the regular rate.

C — OVERTIME WITH INCREASED PAY

The third group of exceptions relates to the overtime with increased pay that may be needed to meet various requirements of the undertakings, and especially the exceptional pressure of work due to a sudden influx of orders or the obligation to deliver the goods manufactured within a given period. A large number of national regulations provide for the possibility of working such overtime in order to meet economic requirements.

The international Conventions on hours of work allow for an exception of this kind, except the Conventions concerning glass works, which relate only to continuous processes, owing to the continuity of these processes and the fact that they are carried out by successive shifts, there is no need for such an exception. The Conventions concerning hours of work in industry, commerce and offices, and public works allow overtime to meet exceptional cases of pressure of work. The Convention concerning hours of work in coal mines simply grants an overtime

allowance without specifying the circumstances in which it may be used, and thus leaves greater freedom to employers in using the overtime at their disposal.

For the international regulations at present under consideration, such freedom may seem all the more desirable in that the regulations are based on a limitation of the working week to 40 hours. It seems necessary, however, to prevent recourse to this overtime from taking the form of a regular and systematic increase of the working day, obtained by spreading the overtime allowance over every day of the year at the rate of a certain number of minutes per day. Such a practice would certainly be contrary to the spirit of the exception.

Nevertheless, in view of the fact that this overtime is intended to meet economic needs, it may be feared that its use may be abused and the conditions of competition consequently modified. It therefore seems that its amount should be limited in order that all undertakings in the various countries may be placed on an equal footing. It may be remembered in this connection that the limitation of such overtime is frequent in the national regulations and that it is to be found in the Conventions on hours of work in coal mines (60, 100, and 150 hours per year according to the kind of mine) and on public works (100 hours per year).

Finally, it is generally accepted that this kind of overtime should be paid at an increased rate. The rate varies widely according to country and in each country according to the agreements concluded between the parties concerned. Sometimes a flat rate of overtime pay is fixed. Sometimes the rate varies with the amount of overtime worked and according as it is worked by day, at night, on Sundays or on public holidays. The international Conventions on hours of work which allow this overtime fix a uniform rate of increase of one and a quarter times the normal rate of wages. The proposed draft Convention on the reduction of hours of work in the textile industry, adopted by the competent Committee of the Twentieth Session of the Conference, provided, however, for time-and-a-half rates.

Governments might be consulted on the desirability of providing in the international regulations on the reduction of hours of work in the chemical industry for the various exceptions mentioned above. At the same time, they should be asked to suggest any other reasons for exceptions that they may consider necessary.

As regards the exceptions in the first group, it would for instance be useful to know whether Governments are in favour of limiting the extension of hours by national regulations. As regards those in the third group, Governments should be consulted as to the amount of overtime allowed, the rate or rates of increased pay for such overtime, and the condition that this overtime should not be used as a means of systematically extending the working day or week.

6. Application of Certain Provisions of the International Regulations by Means of Collective Agreements or Arbitral Awards

The international regulations to which it should be possible for the national regulations to conform cannot enter into all the details of applying the 40-hour system. On certain points they must be content with prescribing general standards, the methods of applying which will necessarily vary from one country to another, so that they cannot be fixed otherwise than nationally. The international regulations must therefore leave it to national regulations to find the solution for certain problems in regard to which they only lay down a general principle.

The national authority may give its solution in the form of regulations. Most of the Conventions so far adopted have had recourse to this method, and in several cases they provide that before issuing such regulations the competent authority should consult the employers and workers concerned and even, in certain cases, should take existing agreements into account.

On several occasions, however, at previous Sessions of the Conference and at the various tripartite meetings, the delegates of certain countries have expressed the wish that the international regulations should have direct recourse to collective agreements, which in these countries play an important part in regulating conditions of employment.

The question arises whether it would not be possible to take these wishes into account and to make use of collective agreements, and therefore also of arbitral awards, for the application of some of the provisions entrusted by the international regulations to national regulation.

It would obviously be necessary to have a guarantee that these collective agreements or arbitral awards would in practice have the same effect as regulations issued by the public authority.

It would therefore be for the competent authority of each country to determine whether such a guarantee exists. If not, or if the collective agreements or the awards no longer take effect, it would be clearly understood that the regulations of the competent authority would take the place of the agreements or awards in question.

If the principle of recourse to collective agreements or arbitral awards is accepted for the application of certain provisions of the Convention, it becomes necessary to consider what practical scope it should be given. Among the questions that might usefully be regulated by collective agreements or arbitral awards are the following: the fixing of the maximum period over which the average working week may be calculated (if this method of calculation is adopted), the making-up of lost time, the limitation of the extension of hours of work in the case of general exceptions applicable to certain categories of work or persons, the fixing of the overtime allowance for which an increase in pay is due.

The consultation of Governments might relate in the first place to the principle of using collective agreements or arbitral awards for the application of certain provisions of the international regulations, and, secondly, to the provisions that might be applied by this means.

7. Measures of Enforcement and Supervision

It would be desirable for the proposed Draft Convention on the reduction of hours of work in the chemical industry to contain a certain number of provisions for enforcement and supervision, such as are to be found in the other Draft Conventions on hours of work already adopted. Some of these provisions would apply to the employers whose undertakings are subject to the Convention and others to the Governments of countries having ratified the Convention.

A. — OBLIGATIONS IMPOSED ON EMPLOYERS

The first measures for securing the due application in each country and in each undertaking of the rules laid down by the Convention might take the form of an obligation imposed on employers to post up or to make known by any other suitable method approved by the competent authority the time-table of

the undertaking and, if need be, of each shift, the arrangement of hours of work, the rest intervals not included in hours of work, etc

In addition, employers might be placed under an obligation to keep a record of the use made of the allowance of overtime with increased pay placed at their disposal, and also of the amount of the payments made in respect of the overtime worked

B — INTERNATIONAL SUPERVISION

The second set of measures for facilitating international supervision of the application of the Convention in the countries having ratified it might be taken under Article 22 of the Constitution of the Organisation. Governments of the countries having ratified the Convention might be required to communicate to the International Labour Office all information relating to the application of the Convention and in particular to any regulations that might have been adopted under the provisions of the Convention and to the application of these regulations

This information might, if necessary, also relate to the application of certain provisions of the Convention through collective agreements or arbitral awards

It would be desirable to ask Governments whether they consider these measures for enforcement and supervision sufficient, and if not, to request them to propose others

8. Suspension of the Regulations

Several of the general laws and regulations on hours of work provide that their application may be suspended in case of events endangering national security. The international regulations should take this preoccupation of the national legislatures into account or else difficulties may be met with when the Convention is to be ratified. It therefore seems indispensable to consult Governments on the desirability of including in the proposed international Convention a provision to allow of suspending its application when national security is at stake

9. Gradual Application of the Regulations

The introduction of the 40-hour week might be facilitated if provision was made for its gradual application where its immediate application in full would meet with serious difficulties

Instead of applying the 40-hour week at once in all the undertakings covered and to the whole staff of these undertakings, the introduction might be effected by stages in regard to hours, undertakings, and categories of staff. On the one hand, hours of work might be reduced by successive stages. On the other, some undertakings or processes and even some categories of staff might be made subject to the regulations only after a specified period had expired. Such measures would be justified by the impossibility of rapid adjustment to the new system owing to circumstances endangering the existence of the undertakings in question or to the state of the labour market, a shortage of labour in general or of skilled workers in particular. They would make it possible to spread the process of adjustment and to arrive without over-sudden shocks at a rational organisation of the work on the basis of the 40-hour week. The facilities so granted should not be general, but should merely be left to the discretion of the competent authority, which would act according to circumstances. The transitional period of adjustment would be limited, and once the time-limit fixed by the international regulations had been passed, the 40-hour system would have to be fully and generally applied.

The 40-hour week has thus been introduced gradually in France as regards certain classes of industrial undertakings, for which extensions of the present system the respective administrative regulations authorise for periods of three to six months which can be renewed up to a maximum of two years. For certain handicraft undertakings, the two years' extension is even allowed at once. There are also certain classes of undertakings which, as a transitional measure, may work longer hours than 40 in the week. However no such special measures are provided for the chemical industry.

The new Belgian Act provides for a gradual reduction to 40 hours by successive stages. One of the first applications of its provisions relates to coal mines, where hours are fixed at 45 in the week.

It may therefore be of interest to consult Governments on this question, and if they favour the gradual application of the 40-hour week, to request them to give their opinion on the measures to be adopted for this purpose in the international regulations.

10. Relation between the Proposed Draft Convention on the Reduction of Hours of Work in the Chemical Industry and the 40-Hour Week Convention, 1935

The various aspects of this problem were discussed in the Red Reports which were addressed to the Governments of Member States immediately after the 1935 Session of the Conference, and contained questionnaires dealing with the reduction of hours of work in the branches of employment selected for a second discussion in 1936, as also in the Blue Reports submitted on this subject to the Twentieth Session of the Conference

It will be remembered that the first Draft Convention for the application of the general Convention dealt with hours of work in the glass-bottle industry and that the relation between that Convention and the general Convention was defined in the preamble. The Twentieth Session of the Conference, when faced with the same problem for the various proposed Draft Conventions with which it had to deal, did not feel that it could define more fully the obligations imposed on States Members by the necessity for maintaining the standard of living of the workers, and it therefore had recourse to exactly the same solution as in the case of glass-bottle works when it adopted a Draft Convention on public works financed or subsidised by Governments

Governments could be consulted as to whether they consider the solution contained in the two Draft Conventions adopted to be satisfactory in view of the very special problems involved in international regulations in this field, and, if not, as to what other suggestion they can make

CONSULTATION OF GOVERNMENTS

The foregoing analysis of the problems which might be dealt with by international regulation permits of fixing as completely as possible the points on which Governments might be consulted in conformity with the provisions of Article 6 of the Standing Orders of the Conference

Taking into account the conclusions reached above and the methods on which international agreement may be possible, the Office has drawn up a list of the points on which it considers that the Conference might request it to consult Governments

1. FORM OF THE REGULATIONS

A draft Convention.

2. SCOPE

A — UNDERTAKINGS COVERED

- (a) (1) Principle of the application of the international regulations to undertakings or branches thereof engaged solely or mainly in the manufacture of the products enumerated in a list.
- (11) Adoption for this enumeration of the following list :
 - Acids, alkalis and salts ;
 - Chlorine and its derivatives ;
 - Sulphur, phosphorus, arsenic, antimony, iodine, bromine, fluorine and their compounds ;
 - Alumina (Al_2O_3) and other chemical derivatives of aluminium ;
 - Cyanides ;
 - Calcium carbide ;
 - Nitrogenous compounds ;
 - Artificial fertilisers, chemical or organic ;
 - Products of the distillation of coal tar ;

Explosives ;
Matches ;
Compressed, liquefied, and dissolved gases ;
Artificial carbon ;
Synthetic precious stones ;
Products of the refining of mineral oil ;
Organic fats other than edible fats and oils, —
 soap, candles, and glycerine ;
Industrial alcohol ;
Products of the distillation of wood ;
Dyeing and tanning extracts ;
Resin, turpentine, and camphor ;
Rubber products ;
Starch ;
Glue and gelatine ;
Intermediate organic products, such as ethers and
 acetic, formic, oxalic, tartaric, and citric acids ;
Chemical products used for pharmaceutical pur-
 poses ,
Chemical photographic products ;
Perfumes and other aromatic substances ;
Organic and inorganic dyestuffs ;
Lacquers, varnishes, paints, pigments, inks ;
Chemical products for cleaning and polishing ;
Radio-active products

(b) Determination in doubtful cases by the competent authority in each State, after consultation with the organisations of employers and workers concerned, of the undertakings or branches thereof covered by the international regulations.

(c) Possibility of excluding by national regulations undertakings where only members of the employer's family are employed.

B — PERSONS COVERED

(a) Application of the international regulations to the persons employed in the undertakings or branches thereof considered to belong to the chemical industry.

(b) Possibility of exempting by national regulations persons whom, in virtue of their special responsibilities or qualifications, it is customary to consider not subject to the normal regulations on hours of work.

3. DEFINITION OF HOURS OF WORK

(a) Principle of the introduction of a definition of hours of work in the international regulations.

(b) Adoption of the following as the definition of hours of work :

The term " hours of work " means the time during which the persons employed are at the disposal of the employer ; it does not include rest periods during which the persons employed are not at the disposal of the employer.

4. LIMITATION OF NORMAL HOURS OF WORK

A — BASIS FOR THE DETERMINATION OF THE WORKING WEEK

(a) Principle of the limitation of normal hours for non-continuous processes :

(1) to 40 hours in each week, or

(11) to 40 hours per week averaged over a period to be specified.

(b) Principle of the limitation of normal hours for necessarily continuous processes to :

42 hours per week averaged over a period to be specified.

(c) Determination of necessarily continuous processes, that is to say, of processes carried out by successive shifts without interruption during the seven days of the week :

(1) by the international regulations, and, if so, indication of such processes, or

(11) by national regulations.

B — LIMITATION OF EACH WEEK TO 40 HOURS

(a) Principle of the limitation of the maximum working day by national regulations.

(b) Possibility of exceeding the maximum daily limit in certain exceptional circumstances.

Determination by national regulations of the circumstances in question, the extent to which the maximum daily limit may be exceeded, and the procedure for obtaining a permit.

(c) Principle of making up certain lost time.

(d) Determination :

- (i) by the international regulations, or
- (ii) by national regulations
of the cases in which the making-up of lost time
may be authorised,
the period within which lost time must be made up,
the maximum extension of the working day and
week allowed.

C. — LIMITATION OF THE AVERAGE WORKING WEEK TO 40 HOURS

(a) Principle of the fixing of the maximum period over which the average working week may be calculated :

- (i) If so, fixing by the international regulations of the period proposed for the maximum limit, or
- (ii) fixing by national regulations.

(b) Principle of the limitation of the maximum working day by national regulations

(c) Possibility of exceeding the maximum daily limit in certain exceptional circumstances.

Determination by the national regulations of the circumstances in question, the extent to which the maximum daily limit may be exceeded, and the procedure for obtaining a permit.

(d) Principle of the limitation of the maximum working week:

- (i) by the international regulations, and, if so, the period proposed for the maximum limit, or
- (ii) by national regulations.

(e) Possibility of exceeding the maximum weekly limit in certain exceptional circumstances.

Determination by the national regulations of the circumstances in question, the extent to which the maximum weekly limit may be exceeded, and the procedure for obtaining a permit.

5. EXCEPTIONS

A — GENERAL EXCEPTIONS FOR CERTAIN KINDS OF WORK OR OCCUPATIONS

(a) Indication of the kinds of work or occupations that may form the subject of permanent exceptions :

- (1) preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the undertaking, branch, or shift;

- ii occupations which by their nature involve long periods of inaction during which the persons concerned have to display neither physical activity nor sustained attention, or remain at their posts only to reply to possible calls :
- iii work which for technical reasons cannot be interrupted at will or which must be carried on in order to prevent the deterioration of raw materials or manufactured goods ;
- iv work connected with the transport, delivery, loading or unloading of goods ;
- v work connected with the introduction of any new process or the taking into use of any new appliances or machinery ;
- vi other exceptions.
- b) Determination by national regulations of :
 - i the exceptions authorised ;
 - ii the length of the extension allowed in each case.

B. — EXCEPTIONS IN EXTRAORDINARY CIRCUMSTANCES

- a) Indication of the circumstances justifying an exception :
 - i accidents actual or threatened ; urgent work to be done to machinery, plant or equipment ; cases of *force majeure* ;
 - ii need of making good the unforeseen absence of one or more members of a shift ;
 - iii other exceptions.
- b, Limitation of the extension to the period needed to prevent serious interference with the ordinary working of the undertaking.
- c) Obligation for the employer to inform the competent authority at once of any overtime worked in excess of the normal hours, and of the reasons for such overtime.

C. — OVERTIME WITH INCREASED REMUNERATION

- a, Possibility of working overtime with increased remuneration.
- b, Determination by the international regulations of the reasons for which this overtime may be justified.

(c) Limitation by the international regulations of the amount of this overtime.

(d) Fixing by the international regulations of the minimum rate of increase of pay for overtime :

- (i) a flat rate of increase, or
- (ii) different rates of increase according to the amount of overtime worked and according as it is worked by day, at night, on Sundays or on public holidays ;
- (iii) determination of the rate or rates of increase.

6. RECOURSE TO COLLECTIVE AGREEMENTS OR ARBITRAL AWARDS FOR THE APPLICATION OF CERTAIN PROVISIONS OF THE INTERNATIONAL REGULATIONS

Recourse to collective agreements or arbitral awards for fixing the methods of applying the provisions of the international regulations concerning :

- (i) the fixing of the maximum period over which the average of 40 hours per week may be calculated (42 hours for necessarily continuous processes) ,
- (ii) the making-up of lost time ;
- (iii) the limitation of the extension of hours of work in virtue of the general exceptions for certain kinds of work or occupations ;
- (iv) the fixing of the amount of overtime with increased pay.

7. GRADUAL APPLICATION OF THE INTERNATIONAL REGULATIONS

(a) Principle of the gradual application of the international regulations in regard to :

- (i) the reduction of hours of work ;
- (ii) the application of the regulations to certain categories of undertakings, processes or persons.

(b) Determination by national regulations of the cases in which recourse would be had to measures for gradual application.

(c) Determination by the international regulations of the time-limit for the full application of the regulations

8. SUSPENSION OF THE INTERNATIONAL REGULATIONS

Principle of the introduction in the international regulations of a provision to allow of suspending their application in the case of events endangering national security.

9. MEASURES FOR ENFORCEMENT AND SUPERVISION

A — OBLIGATIONS TO BE IMPOSED ON EMPLOYERS

(a) Posting-up of :

- (1) the hours at which work begins and ends, and where work is carried on by shifts, the hour at which each shift begins and ends ;
- (II) the system of arrangement of hours of work in force and the provisions adopted for applying this system ;
- (III) rest intervals not included in hours of work.

(b) Obligation to keep a record of the use made of the right to work overtime with increased pay and of the amount of such overtime pay.

(c) Other measures.

B. — ANNUAL REPORTS OF THE STATES

Indication in the Draft Convention of the particular information to be supplied in the annual reports, for instance, as regards the measures adopted under national regulations in virtue of the provisions of the international regulations.

10. RELATION BETWEEN THE PROPOSED DRAFT CONVENTION CONCERNING THE REDUCTION OF HOURS OF WORK IN THE CHEMICAL INDUSTRY AND THE 40-HOUR WEEK CONVENTION, 1935

Reference in the preamble to the Convention to the relation between this Convention and the 40-Hour Week Convention, 1935, in the following form :

“ The General Conference . . .

“ Confirming the principle laid down in the 40-Hour Week Convention, 1935, including the maintenance of the standard of living ;

“ Considering it to be desirable that this principle should be applied by international agreement to the chemical industry ;

“ Adopts ” . . .

PART II

BASIS FOR A SINGLE AND FINAL DISCUSSION

This part of the Report is designed to enable the Conference, if it should so decide, to proceed at its Twenty-third Session to the immediate adoption of international regulations for the reduction of hours of work in the chemical industry. It therefore gives the text of a proposed Draft Convention submitted by the Office for the consideration of the Conference, together with a commentary explaining the suggested provisions Article by Article.

In the preparation of its proposals the Office has not, of course, had the benefit of the replies of Governments to a questionnaire on the subject and has therefore not had the customary basis on which to frame its proposals. On the other hand, as regards the definition of the chemical industry, the Office has been able to supplement the documentary information already at its disposal, which has been summarised in the first part of this Report, by the data supplied by the Preparatory Technical Tripartite Meeting on the reduction of hours of work in the industry, the report of which is reproduced in an Appendix.

In addition, the Office has been able to obtain some useful information from the discussions on the reduction of hours of work that have taken place at previous sessions of the Conference, at least as regards those provisions of the international regulations which can be common to the various industries. It should not be forgotten that the Committees of the Conference to which the texts prepared by the Office were referred were deprived of the collaboration of most of the employers' delegates, and thus lacked the technical advice of experts who were particularly qualified to draw their attention to various methods of meeting the legitimate needs of production.

The Office has taken this abnormal situation and its effects on the practical value of the texts resulting from the deliberations of these Committees into account and has prepared a proposed Draft Convention which differs in certain respects from those put forward in 1935 and 1936 by the competent Committees of

the Conference, while at the same time it is closer to the actual situation in those countries which have recently embarked on a policy of reducing hours of work. In other words, the text proposed by the Office is largely inspired by the national regulations on the 40-hour week now in force.

It has been the wish of the Office to draw up regulations that will be able in the first place to obtain the approval of the Conference, and secondly, to be ratified by the countries which have already introduced the 40-hour week or may possibly do so in the near future. An attempt has therefore been made to draw up a set of standards forming a framework into which may be fitted the measures for reducing hours that some countries have already adopted after overcoming or trying to overcome the practical difficulties of application. To this end it is necessary that the international regulations should be as flexible as the national laws and regulations at present in force. Such flexibility, moreover, may help other countries to change over from the system of 48 hours to that of 40 hours.

Accordingly, the proposed Draft Convention put forward by the Office differs considerably in some of its Articles from the earlier proposed Draft Conventions for other industries and contains several new provisions intended to facilitate the application of the international regulations.

Commentary upon the Proposed Draft Convention for the Reduction of Hours of Work in the Chemical Industry¹

SCOPE OF THE DRAFT CONVENTION

Definition of the Chemical Industry

Article 1

For the purpose of this Convention the term "chemical products" means the products enumerated below

- (i) acids, alkalis and salts,
- (ii) chlorine and its derivatives,
- (iii) sulphur, phosphorus, arsenic, antimony, iodine, bromine, fluorine and their compounds,
- (iv) alumina (Al_2O_3) and other chemical derivatives of aluminium,
- (v) cyanides,
- (vi) calcium carbide,

¹ The complete text of the proposed Draft Convention submitted by the Office will be found at the end of the Report.

- (vi) nitrogenous compounds,
- (vii) artificial fertilisers, chemical or organic,
- (ix) products of the distillation of coal tar,
- (x) explosives,
- (xi) matches,
- (xii) compressed, liquefied and dissolved gases,
- (xiii) artificial carbon,
- (xiv) synthetic precious stones,
- (xv) products of the refining of mineral oil,
- (xvi) organic fats other than edible fats and oils, soap, candles and glycerine,
- (xvii) industrial alcohol,
- (xviii) products of the distillation of wood,
- (xix) dyeing and tanning extracts,
- (xx) resins, turpentine and camphor,
- (xxi) rubber products,
- (xxii) starch and paste,
- (xxiii) glue and gelatine,
- (xxiv) intermediate organic products, such as ethers and acetic, formic, oxalic, tartaric and citric acids,
- (xxv) chemical products used for pharmaceutical purposes,
- (xxvi) chemical photographic products,
- (xxvii) perfumes and other aromatic substances,
- (xxviii) organic and inorganic dyestuffs,
- (xxix) lacquers, varnishes, paints, pigments and inks,
- (xxx) chemical products for cleaning and polishing,
- (xxxi) radio-active products

The item placed on the Agenda of the Conference is "the reduction of hours of work in the chemical industry", and the first question that arises is what is meant by "the chemical industry" for the purposes of the proposed international regulations

This question has been discussed in detail in Chapter IV of this Report and there seems no need to revert here to the method of defining the chemical industry by the nature of the products manufactured, which the Office proposes for adoption, or to the manner in which the list of these products has been drawn up, a list that is identical with that appearing on p 83. This list comprises products the manufacture of which is generally recognised to belong to the chemical industry, but, as indicated on page 84, it leaves out certain products on which the Preparatory Technical Tripartite Meeting was unable to agree or which lie on the borderline between the chemical industry and other manufacturing industries. Further, as also indicated on p 84, this list does not include the chemical processes involved in the manufacture of artificial silk or other synthetic fibre, these processes being included in the scope of the proposed Draft Convention for the reduction of hours of

work in the textile industry, which is also submitted to the present session of the Conference

In practice it seems that all the countries likely to be interested in the Convention for reducing hours of work in the chemical industry could accept this list. The items designate as a rule categories or groups of products rather than specific products, and most of them could comprise a number great or small, of particular products.

It therefore seems unlikely that future progress in chemical science will lead to the creation and industrial manufacture of other chemical products which could not be classified under one or other of the categories or groups mentioned. If, however, this were to happen for important products, it may be pointed out that the Convention could be revised should this be found absolutely necessary.

Undertakings and Branches thereof covered

Article 2

1. This Convention applies to .

- (a) persons employed in an undertaking which is wholly or mainly engaged in the manufacture of chemical products, including persons employed in any branch of such an undertaking which branch is not wholly or mainly engaged in the manufacture of chemical products, and
- (b) persons employed in a branch of an undertaking which branch is wholly or mainly engaged in the manufacture of chemical products, even though the undertaking is not wholly or mainly engaged in the manufacture of chemical products

2. In any case in which it is doubtful whether an undertaking or branch of an undertaking is wholly or mainly engaged in the manufacture of chemical products, the question of whether the undertaking or branch is to be regarded as being wholly or mainly engaged in the manufacture of such products shall be determined by the competent authority after consultation with the organisations of employers and workers concerned where such exist.

3. This Convention applies to persons employed in both public and private undertakings.

Under this Article the international regulations on hours of work in the chemical industry apply to the undertakings or branches of undertakings which are wholly or mainly engaged in the manufacture of the chemical products enumerated in Article 1.

Clauses (a) and (b) of paragraph 1 of this Article deal with the two main cases

Clause (a) relates to undertakings which are wholly or mainly engaged in the manufacture of chemical products. All persons employed in these undertakings will be subject to the regulations, whatever the branch of the undertaking in which they are employed even if the work of the branch does not involve the manufacture of chemical products. By such branches are meant administrative offices, commercial offices, laboratories, warehouses for the storage of raw materials or manufactured goods, packing, despatch, delivery and transport departments, etc. All these departments are indispensable to the working of the undertaking and are situated in the same premises or set of premises as the manufacturing departments proper, together with which they form a physically distinct unit.

The principle laid down here is not new. It is that always upheld by the Office in regard to the international regulation of hours of work. The Conference itself has approved it on several occasions, for example, the Report of the Committee on Hours of Work to the Eighteenth Session of the Conference (1934) said "these terms (industrial undertakings, establishments, shops) are intended to refer to physically distinct units. The criterion is not economic organisation but physical distinctness."

This is why the term "undertaking" should not be interpreted in the wide sense of an economic or legal unit comprising all the departments that a large firm may possess. Head offices, commercial agencies, the shops of certain large chemical firms producing fertilisers, oil, dyestuffs, drugs, etc., which form as many physically distinct units, separate one from another and independent in their technical working, cannot be covered by the present regulations. On the other hand, the actual factories with all the departments belonging to them should be subject to the regulations.

Clause (b) relates to the undertakings which, since they are not wholly or mainly engaged in the manufacture of chemical products, cannot be classified as belonging to the chemical industry, but which have clearly distinct branches which are so engaged and for this reason are subject to the regulations.

Thus paragraph 1 of Article 2 indicates the characteristic that undertakings and branches of undertakings must have in order to be subject to the regulations. In view of the prevalence of the frequent intermingling of industries and the impossibility of

activities of certain undertakings, doubts may arise when these criteria have to be applied in practice in order to determine whether certain products are to be classified as chemical products, or again, whether an undertaking or a branch of an undertaking is wholly or mainly engaged in the manufacture of chemical products

In such cases paragraph 2 of this Article provides that it will be for the competent authority to decide, after consulting the organisations of employers and workers concerned, whether such undertakings or branches of undertakings should be subject to the international regulations

Finally, for the reasons given in Chapter IV of this Report (p 88), and in accordance with the precedent set by the other Draft Conventions, paragraph 3 of this Article provides that the regulations will apply to both public and private undertakings.

Persons Exempted

Article 3

The competent authority may, after consultation with the organisations of employers and workers concerned where such exist, exempt from the application of this Convention

- (a) persons employed in undertakings in which only members of the employer's family are employed, and
- (b) persons who by reason of their special responsibilities or qualifications are customarily regarded as not subject to the normal rules governing hours of work

According to paragraph 1 of Article 2 of the text prepared by the Office, all persons employed in the undertakings or branches of undertakings covered by the Convention will be subject to the provisions of the Convention. This is a general rule, and it may be found expedient or necessary to allow exceptions. The object of Article 3 is not to exclude formally certain categories of persons, but to enable the competent authority of each country to decide on their exclusion, after consulting the organisations of employers and workers concerned.

The Article relates to two categories of persons

In the first place, it refers to persons employed in undertakings in which only members of the employer's family are employed. This exemption is in conformity with most of the national laws and regulations and is also justified by the

difficulty of supervising the hours worked by this category. It should be added that it will be for the competent authority of each country to decide, in accordance with national law and custom what is meant by the word "family".

The second exemption is much more general. In Chapter IV of this Report special attention was drawn to the situation under hours of work regulations of persons employed in positions of management, supervision or trust. It was stated that a certain number of national laws excluded persons holding positions of this kind, and the particular categories of persons which some of these laws deemed to be in a position of management, supervision or trust were mentioned.

But owing to the extent to which the types of administrative or technical organisation of work differ within any country and even more as between countries, and owing to the sometimes very different interpretations that are given to the terms "management", "trust", and "supervision" in the different countries and undertakings, the Office has thought it preferable not to refer to particular functions explicitly but merely to indicate the criterion on which the exclusion of this category of persons should be based.

This criterion is the degree of responsibility and qualifications of the persons in question, as a result of which they are in such a position that it is not customary in the occupation or country concerned to regard them as subject to the normal rules governing hours of work.

The proposed provision thus merely confirms the actual situation in each undertaking as explicitly or implicitly recognised by national laws and regulations. The competent authority in each country will be fully acquainted with this situation, since before taking its decision it will have to consult the organisations of employers and workers concerned. These organisations know exactly which persons customarily carry out their work without being subject to any limitation on their hours or to an unvarying time-table.

Although the text proposed by the Office may seem wide at first sight, in practice it would only exclude from the regulations persons who in fact are already exempt under established and undisputed custom.

In conclusion, it may be added that this possibility of excluding particular categories of persons can be applied to commercial travellers, whose hours, as stated in Chapter IV,

it is hardly possible to limit owing to the nature of their work

DEFINITION OF HOURS OF WORK

Article 4

For the purpose of this Convention the term "hours of work" means the time during which the persons employed are at the disposal of the employer and does not include rest periods during which they are not at his disposal

This definition of hours of work is the same as that contained in the Draft Conventions on hours of work in commerce and offices (1930) and on public works (1936). It does not appear to be in contradiction with those to be found in the various national regulations, and so far no Government has put forward any objections to it. As the definition of hours of work in the chemical industry taken as a whole raises no special problem as compared with other industries, the Office has thought that the definition already adopted could be maintained.

NORMAL HOURS OF WORK

Article 5

1 The hours of work of persons to whom this Convention applies shall not exceed an average of forty per week

2 In the case of persons who work in successive shifts on processes required by reason of the nature of the process to be carried on without a break at any time of the day, night or week, weekly hours of work may average forty-two

3 The competent authority shall, after consultation with the organisations of employers and workers concerned where such exist, determine the processes to which paragraph 2 of this Article applies

4 Where hours of work are calculated as an average the competent authority shall, after consultation with the organisations of employers and workers concerned where such exist, determine the number of weeks over which the average may be calculated and the maximum number of hours that may be worked in any week

5 Provided that the competent authority may exempt from any determination made by it in pursuance of the preceding paragraph any persons in respect of whom it is satisfied that the number of weeks over which the average may be calculated and the maximum number of hours that may be worked in any week are satisfactorily and effectively limited by collective agreement or arbitral award

The first paragraph of this Article fixes the normal average working week at 40 hours for the persons to whom the Convention applies except those employed on necessarily continuous processes, who are allowed under the next paragraph to work an average week of 42 hours. These provisions are altogether compatible with the standards established in those countries which have systematically undertaken a reduction of hours of work.

The processes which must necessarily be carried on by successive shifts, working without a break at any time of the day, night or week will be determined in virtue of paragraph 3 by the competent authority of each country after first consulting with the organisations of employers and workers concerned. It is for the practical reasons set forth in Chapter IV (p. 94) that the Office proposes that this determination should be left to the competent authority rather than that the Draft Convention itself should contain a list of the processes regarded as necessarily continuous.

The working weeks of 40 hours and 42 hours are fixed on the basis of an average. For necessarily continuous processes this method of calculation, as stated in Chapter IV (p. 94), allows substantial facilities for the periodical change-over of shifts with a view to a fair distribution of day shifts and night shifts and for the due observance of the weekly rest. For other processes, the calculation of an average has been preferred to the fixing of a figure for each week in order that the regulations may be more flexible and allow of systems of arranging hours of work adjusted to the particular needs of the undertaking. This method of calculation can also facilitate the making-up of certain lost time and in many cases prevent recourse to overtime. Moreover, it is in conformity with provisions made in several countries, e.g. the United States of America and Italy, which have introduced a shorter working week. The French Decree for the application of the 40-hour week in the chemical industry allows hours to be spread over two weeks in the case of certain kinds of manufacture. It also provides for the possibility of making up lost time in cases that can be covered by the method of calculating an average proposed by the Office.

As already described in Chapter IV (p. 98), however, it is indispensable to provide for certain safeguards in order that the arrangement of hours of work may not in practice be free from all supervision or lead at certain times to excessively long hours. These safeguards are contained in paragraph 4 and

consist on the one hand of a limitation of the period, or special periods for particular branches, over which the average may be calculated and on the other, in a limitation of the working week. The Office has not included in its proposal any suggestion for limiting the working day, since it held that, subject to a maximum working week, a certain degree of freedom could be allowed as to the hours worked per day without any fear that this would lead in practice to abuses which would certainly not be tolerated by the national regulations.

As regards the fixing of these limits, the Office proposes that this should be entrusted to the competent national authority, which is best in a position to determine the maximum limits suited to the special conditions of the chemical industry in the country, or of the various branches of the industry, and which can fix them in conformity with the national regulations or practice. By way of a safeguard the Office suggests that the competent authority should consult the organisations of employers and workers concerned before taking a decision.

Further, in countries where hours of work are regulated by collective agreements or arbitral awards, the Office proposes in paragraph 5 that the competent authority should refer to these agreements or awards for the fixing of the number of weeks over which the average may be calculated and the maximum number of hours that may be worked in any week, provided that it is satisfied that these limits are in fact satisfactorily and effectively fixed by the agreement or award. The Office has believed that this provision would facilitate the application of the Convention in those countries where the Government, in agreement in this matter with the employers' and workers' organisations concerned, holds that legislative and administrative intervention in the regulation of conditions of employment should be reduced to a minimum and that, on the contrary, as wide a field as possible should be allowed to collective bargaining and to agreements between the parties concerned duly represented by their organisations.

GENERAL EXCEPTIONS FOR CERTAIN CATEGORIES OF WORK OR PERSONS

Article 6

1 The competent authority may, by regulations made after consultation with the organisations of employers and workers concerned where such exist, provide that the limits of hours authorised by the

preceding Article may be exceeded to an extent prescribed by such regulations in the following cases

- (a) in the case of persons employed on preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the undertaking, branch or shift,
- (b) in the case of persons employed in occupations which by their nature involve long periods of inaction during which the said persons have to display neither physical activity nor sustained attention, or remain at their posts only to reply to possible calls,
- (c) in cases where the continued employment of certain persons is necessary for the completion of an operation which for technical reasons cannot be interrupted,
- (d) in the case of persons employed in connection with the transport, delivery or loading or unloading of goods, and
- (e) in the case of work in connection with the introduction of any new process or the taking into use of any new machinery

2 National laws or regulations may permit the limits of hours authorised by the preceding Article to be exceeded in the cases enumerated in the preceding paragraph of this Article to the extent fixed by any collective agreement or arbitral award by means of which, in the opinion of the competent authority, the hours that may be worked in the said cases are satisfactorily and effectively limited

Paragraph 1 of this Article empowers the competent authority of each country to allow the limits of hours fixed by the preceding Article to be exceeded for the categories of work and persons enumerated

Clause (a) relates to persons whose employment must begin before the general work of the undertaking or shift in order that as soon as the bulk of the staff has arrived the general work may be set going in full swing. It also relates to persons whose work must be continued after the general work of the undertaking or shift has ended in order to allow of its resumption the next day. The object is to cover what is known as preparatory and complementary work.

The persons affected include enginemen, stokers and electricians employed in the department for the supply of power, light and heat, and, in some cases, on transport and hoisting equipment. They also include workers responsible for minding furnaces, stoves, autoclaves, boilers and all other appliances which, if they are to be ready for work at a particular moment, must first have been heated or undergone some other preparation. This exception may also apply to certain work on the maintenance and cleaning of machinery, plant or premises which cannot be done during the general work of the undertaking and in some cases to the minding of draught animals.

Clause (b) refers to such persons as porters, doorkeepers, watchmen, caretakers, warehousemen, weighbridge-men, time-keepers, telephone operators of private exchanges, fire brigade, medical staff, etc. The number of persons affected by this exception is small compared with the total staff of the undertakings subject to the regulations. To be covered by the exception these occupations must call only for slight physical effort or mental strain. The wording of the provision is restrictive, and its application depends on the absence of physical activity and sustained attention during long periods of inaction on the part of the persons affected.

Clause (c) relates to operations which, once they have been begun, cannot be interrupted until they are completed. The time such operations take may vary with the circumstances in which they are carried out, or it may be impossible for the worker to influence the reactions on which it is based. If such operations are interrupted, the results might be interfered with or the apparatus be injured. This might mean a loss of raw materials or damage to plant that must necessarily be avoided. If it is found that the interruption of certain operations is impossible, it becomes necessary to provide for an extension of the hours of the persons engaged on such operations.

Clause (d) makes it possible to extend the normal hours of work for persons employed in connection with the transport of raw materials, manufactured goods, etc., whatever the method of transport employed (lorries, railways, and so forth). This exception also covers the delivery of goods to sales branches or traders. It applies further to the work of loading or unloading goods and to the weighing of lorries and trucks and the shunting of trucks on sidings connecting the undertaking with a main railway.

Finally, clause (e) refers to a more special and probably less frequent case, that of the introduction of any new process or the taking into use of any new machinery or appliance. There can be no doubt that in this case an extension of hours may often be needed to prevent a holding-up of the work that may seriously injure the undertaking.

All, or at least some, of the reasons for extending hours set forth above are to be found in the national regulations on hours of work, for instance in the French Decree fixing the methods of applying the 40-hour week in the chemical industry, and they correspond to the practice observed in most countries. For this

reason the Office has considered it desirable to include them in the proposed Draft Convention which it is submitting to the Conference for consideration

The Office does not propose, however, that an absolute rule should be adopted. It merely suggests that the competent authority of each country should be given the possibility of allowing these extensions of hours, and similarly it would leave it to that authority to fix the procedure and the limits in each particular case. It would further make it obligatory for the authority to consult in advance the employers' and workers' organisations concerned, which are in a position to ascertain exactly the categories of persons or work for which exceptions are indispensable and the limits to the authorised extensions that may be found reasonable and sufficient.

For the reasons indicated in Chapter IV (p. 100) the Office does not propose that an increase in wages should be paid for the hours worked in consequence of the extensions allowed in virtue of these exceptions.

In paragraph 2 of this Article the Office suggests that extensions of normal hours of work for the reasons enumerated above may be applied in virtue of the provisions of collective agreements or arbitral awards, on condition, however, that the competent authority is satisfied that these agreements or awards provide for the satisfactory and effective limitation of the extensions allowed.

EXCEPTIONS IN EXTRAORDINARY CIRCUMSTANCES

Article 7

The limits of hours authorised by the preceding Articles may be exceeded, but only so far as may be necessary to avoid serious interference with the ordinary working of the undertaking,

- (a) in case of accident, actual or threatened, or in case of urgent work to be done to machinery or plant, or in case of *force majeure*,
- (b) in order to make good the unforeseen absence of one or more members of a shift.

2 The employer shall notify the competent authority without delay of all time worked in virtue of this Article and of the reasons therefor.

These two exceptions, unlike those provided for in the preceding Article, are formally authorised. This is inevitable in view of the circumstances concerned. These circumstances,

which are moreover altogether exceptional, may have considerable effects on the working of the undertaking and the situation of the workers. Even if there is no explicit provision for them in some of the national regulations, these exceptions are nevertheless generally allowed by custom. Moreover, all the international regulations on hours of work have accepted them.

While it is hardly possible to fix a definite limit for the extensions of hours allowed for these reasons it seems logical that the extension should come to an end as soon as the working of the undertaking can again be ensured in normal conditions. In order to prevent any abuse the Office proposes that the employer should notify the competent authority without delay of all time worked in consequence of extraordinary circumstances and of the reasons therefor.

These extensions can be combined with those allowed in virtue of the preceding Article for it is quite possible that the work necessitating these exceptions will have to be carried out by persons whose hours have already been extended in virtue of the general and permanent exceptions allowed under Article 6.

In this case, too the Office has not considered it desirable to provide for an increase of pay.

OVERTIME WITH INCREASED PAY

Article 8

1 The competent authority may permit the limits of hours authorised by the preceding Articles to be exceeded subject to the conditions that :

- (a) all time worked in virtue of this Article shall be regarded as overtime and shall be remunerated at not less than one and a quarter times the normal rates ;
- (b) no person shall be employed in virtue of this Article for more than one hundred hours of overtime in any year and
- (c) there shall be no consistent working of overtime.

2 The competent authority shall only grant such permission in accordance with regulations made after consultation with the organisations of employers and workers concerned where such exist

3 The regulations referred to in the preceding paragraph shall prescribe .

- (a) the procedure to be followed by the employer for obtaining permission to work overtime in virtue of this Article, and
- (b) the maximum number of hours for which the competent authority may grant such permission and the minimum rate of remuneration to be paid for such hours

4 National laws or regulations may provide that subject to fulfilment of the conditions stated in paragraph 1 of this Article the limits of hours authorised by the preceding Articles may be exceeded in virtue of collective agreements or arbitral awards by means of which, in the opinion of the competent authority recourse to overtime is satisfactorily and effectively regulated

Here again the exception is not one that is formally authorised, but merely gives the competent authority in each country the possibility of allowing the hours authorised by the preceding Articles to be exceeded under certain conditions and in accordance with a specified procedure

The object of the Office has been to enable the competent national authority to place at the disposal of employers should this be considered desirable, a certain overtime allowance in order that they may be able to meet the needs for which no provision is made in the preceding Articles. Among such needs most of the national regulations give first place by very explicit reference, to cases of exceptional pressure of work e.g. an influx of seasonal or occasional orders the necessity of delivering goods within a specified period, the desirability of taking advantage of exceptional circumstances such as a chance of obtaining raw materials cheaply which have to be treated without delay or of selling goods under favourable conditions special kinds of work such as stocktaking auditing etc. Recourse may also be had to this measure to increase production in circumstances in which this is called for in the national interest. In some of these cases the employer might meet an exceptional situation by engaging additional staff but in others it would be impossible to have recourse to this means owing to the lack of the necessary labour or for other reasons. Since recourse to overtime may be indispensable it must be made possible

On the other hand full freedom cannot be allowed for such a practice or there may be a risk of abuses which would nullify the actual purpose of limiting hours of work. Precautions are necessary in order to prevent the creation of a situation that may injure both workers and employers. The workers might fear a disguised return to extended normal hours besides which they could not agree to work being done by certain persons as overtime if it could be carried out by additional workers and so hours would be in accordance with the normal limit. Further those employers who would refuse to justify the reasonable use of overtime in all respects of a voluntary

compete with undertakings where hours were regularly prolonged by recourse to overtime.

For these reasons the proposed Draft Convention submitted by the Office makes the use of overtime dependent on a number of conditions.

The first condition is that the overtime must be paid at one and a quarter times the normal rate of wages. Such an increase in pay means a rise in the cost of production and thus reduces the economic benefit which the employer may derive from overtime, and which may induce him to have recourse to it on a large scale. Such a measure consequently has the practical effect of substantially limiting the recourse to overtime.

The second condition consists of a formal restriction for it limits the amount of overtime that the competent authority may place at the disposal of undertakings to 100 hours in any year. This reduces the risk of unfair competition by undertakings which might abuse the right to work overtime.

Finally, the third condition is particularly important and of undoubted efficacy. If properly applied it should prevent the systematic use of the overtime allowance in order to lengthen the working day or week regularly. The 100 hours of overtime might be distributed in such a way as to allow of a 42-hour week throughout the year or a 44-hour week during six months. As stated in Chapter IV (p. 102), such a practice would be contrary to the spirit of the exception, and this is why the Office has suggested that there should be no consistent working of overtime.

Further to complete the series of safeguards mentioned above the Office proposes that the competent authority shall grant permission to work this overtime only in accordance with regulations made after consultation with the organisations of employers and workers concerned. These regulations must prescribe the procedure to be followed by the employer for obtaining permission to work overtime, and fix the maximum number of hours for which the competent authority may grant this permission, a maximum that may not exceed 100 hours a year as also the minimum rate of remuneration to be paid for such hours, a rate that may not be less than one and a quarter times the normal rate.

As regards the regulation of overtime with increased pay, the Office proposes as previously in regard to two other provisions of this proposed Draft Convention that it should be possible to make use of collective agreements or arbitral awards

Provided that the conditions mentioned above are satisfied, national laws or regulations might prescribe that overtime may be worked in accordance with the provisions on the subject contained in collective agreements or arbitral awards, if, in the opinion of the competent authority, these provisions are satisfactorily and effectively applied

PROVISIONS TO FACILITATE THE ENFORCEMENT OF THE REGULATIONS

Article 9

In order to facilitate the effective enforcement of the provisions of this Convention, every employer shall

- (a) notify in a manner approved by the competent authority, by the posting of notices or otherwise,
 - (i) the hours at which work begins and ends,
 - (ii) where work is carried on by shifts, the hours at which each shift begins and ends,
 - (iii) where a rotation system is applied, a description of the system, including a time-table for each person or group of persons,
 - (iv) the arrangements made in cases where the average duration of the working week is calculated over a number of weeks, and
 - (v) rest periods in so far as these are not reckoned as part of the working hours,
- (b) keep a record in the form prescribed by the competent authority of all overtime worked in virtue of Article 8 and of the payments made in respect thereof

This Article, which is to be found in all the Hours of Work Conventions, is intended to facilitate supervision of the application of the essential provisions of the Convention within each undertaking or branch of an undertaking. It requires employers to post up certain particulars relating to the time-table and the arrangements adopted for the organisation of the work

Employers are also required to keep a record of the overtime worked in virtue of Article 8 and giving rise to increased pay, and of the payments made in respect thereof

The application of these measures will supply the workers concerned and the inspection services with sufficient information for the effective supervision of the enforcement of the regulations

SUSPENSION OF THE REGULATIONS

Article 10

Any Member may suspend the operation of the provisions of this Convention during any emergency which endangers the national safety.

In order to take into account the provisions for the suspension of the regulations that are to be found in several national laws on hours of work, the Office has suggested that the Draft Convention should contain this Article which enables any Member having ratified the Convention to suspend its operation during any emergency which endangers the national safety. The period of suspension should of course, not exceed that of the emergency giving rise to this measure.

GRADUAL APPLICATION OF THE REGULATIONS

Article 11

During a period which shall not exceed three years from the coming into force of this Convention for the Member concerned, the competent authority may approve transitional arrangements in virtue of which :

- (a) the reduction of hours of work to the limits authorised by the preceding Articles may be accomplished by stages during the said period :
- b specified classes of workers or undertakings may be exempted from all or any of the provisions of the Convention during the said period.

In Chapter IV p. 106, reference was made to the interest, from the point of view of ratification of the Convention, of enabling each State to apply the standards laid down in the international regulations by degrees, and thus to have at its disposal a transitional period for facilitating adjustment to the 40-hour system. It was also mentioned that the Belgian regulations introducing the 40-hour week were founded on measures of this kind.

To satisfy requirements of this kind, the Office proposes in clause (a) of this Article to authorise the competent authority to approve transitional arrangements in virtue of which the reduction of hours of work to the limits fixed in the Convention may be accomplished by stages. Clause b, empowers the competent authority to authorise the exemption of specified classes of workers or undertakings from all or any of the provisions of the Convention.

The actual methods of fixing these stages and of selecting the classes of persons or undertakings to be exempted are left to the discretion of the competent authority, which alone has sufficient knowledge of the actual situation to be able to adopt desirable and appropriate measures.

The Office proposes, however, that this transitional period should be limited to not more than three years from the date the Convention comes into force for the ratifying State. At the end of this period the Convention must be applied in full to all classes of persons and undertakings subject to the regulations

INTERNATIONAL SUPERVISION

Article 12

The annual reports submitted by Members upon the application of this Convention shall include more particularly full information concerning

- (a) exemptions made in virtue of Article 3 (b),
- (b) determinations made in pursuance of Article 5, paragraph 3, and of Article 5, paragraph 4,
- (c) regulations made in virtue of Article 6, paragraph 1,
- (d) the extent to which overtime is worked in virtue of Article 8,
- (e) transitional arrangements approved in virtue of Article 11, and
- (f) any collective agreements or arbitral awards relied upon in virtue of Article 5, paragraph 5, Article 6, paragraph 2, or Article 8, paragraph 4, and the grounds upon which the competent authority regards such agreements or awards as satisfactory and effective

According to the Constitution of the International Labour Organisation, the form of the annual reports on the measures taken to give effect to a Convention by States Members which have ratified it is determined by the Governing Body of the International Labour Office. It would seem desirable, however, to specify in the text of this Draft Convention — as has been done in the Draft Conventions on hours of work already adopted by the Conference — the more important matters on which information as to the decisions taken by the competent authority would certainly be necessary for the purpose of effective international supervision. The matters specified in this Article relate to

The persons exempted from the regulations in virtue of their special responsibilities or qualifications,

The categories of work deemed by their nature to involve continuous processes,

The number of weeks over which the average working week may be calculated, and the maximum number of hours that may be worked in any week,

The general exceptions authorised for certain categories of work or persons ;

Overtime with increased pay ,

Transitional arrangements for the gradual application of the regulations ,

The collective agreements or arbitral awards to which recourse may be had for

the limitation of the number of weeks over which the average hours may be calculated and the maximum number of hours that may be worked in any week ,

the regulation of the general exceptions allowed for certain categories of work or persons ,

the regulation of overtime with increased pay.

This last information must also supply the reasons for which the competent authority considers that the collective agreements or arbitral awards are satisfactory and effective

SAVING CLAUSE

Article 13

Nothing in this Convention shall affect any law, award, custom or agreement between employers and workers which ensures more favourable conditions than those provided by this Convention

Although paragraph 11 of Article 19 of the Constitution of the Organisation provides that “ in no case shall any Member be asked or required, as a result of the adoption of any Recommendation or Draft Convention by the Conference, to lessen the protection afforded by its existing legislation to the workers concerned ”, the Conference, during preceding sessions, has thought fit to add a similar saving clause to the text of the Conventions on hours of work adopted since 1930. In the most recent Conventions this clause refers not only to legislation but also to awards, agreements and custom

The Office has believed that it would meet with the workers' wishes if the Draft Convention were to contain a clause similar to that already appearing in the other Hours of Work Conventions

RELATION OF THE PROPOSED DRAFT CONVENTION
TO THE 40-HOUR WEEK CONVENTION, 1935

The question of the relation between the 40-Hour Week Convention adopted in 1935 and the several Draft Conventions for the application of the principle therein laid down to particular fields of employment was discussed by the Conference when the Draft Conventions on the reduction of hours of work in glass-bottle works (1935) and on public works (1936) were prepared. For these two Draft Conventions the Conference decided that the relation between them and that on the 40-hour week should be recalled in the preamble to them.

For the Draft Convention concerning the reduction of hours of work in the chemical industry, the Office proposes a similar clause, and it has included in the preamble to its proposed draft, the reference that appears in the preamble to the two Draft Conventions applying the 40-Hour Week Convention to glass-bottle works and public works. This reference is in the following form:

“ The Conference

“ Confirming the principle laid down in the 40-Hour Week Convention, 1935, including the maintenance of the standard of living

“ Adopts

With these explanations and comments, the Office submits to the Conference, in order that it may, if it so desires, proceed to the final adoption of international regulations at its Twenty-third Session, a proposed Draft Convention concerning the reduction of hours of work in the chemical industry, the text of which appears on the following pages

PROPOSED DRAFT CONVENTION CONCERNING
THE REDUCTION OF HOURS OF WORK
IN THE CHEMICAL INDUSTRY

The General Conference of the International Labour Organisation,

Having met at Geneva in its Twenty-third Session on 3 June 1937,

Considering that the question of the reduction of hours of work in the chemical industry is the fifth item on the Agenda of the Session,

Confirming the principle laid down in the Forty-Hour Week Convention, 1935, including the maintenance of the standard of living,

Considering it to be desirable that this principle should be applied by international agreement to the chemical industry,

adopts this day of June one thousand nine hundred and thirty-seven the following Draft Convention

ARTICLE 1

For the purpose of this Convention the term "chemical products" means the products enumerated below

- (i) acids, alkalis and salts,
- (ii) chlorine and its derivatives,
- (iii) sulphur, phosphorus, arsenic, antimony, iodine, bromine, fluorine and their compounds,
- (iv) alumina (Al_2O_3) and other chemical derivatives of aluminium,
- (v) cyanides,
- (vi) calcium carbide,
- (vii) nitrogenous compounds,
- (viii) artificial fertilisers, chemical or organic,
- (ix) products of the distillation of coal tar,
- (x) explosives,
- (xi) matches,
- (xii) compressed, liquefied and dissolved gases;
- (xiii) artificial carbon,
- (xiv) synthetic precious stones,
- (xv) products of the refining of mineral oil,
- (xvi) organic fats other than edible fats and oils; soap, candles and glycerine,
- (xvii) industrial alcohol,
- (xviii) products of the distillation of wood,

AVANT-PROJET DE CONVENTION CONCERNANT LA RÉDUCTION DE LA DURÉE DU TRAVAIL DANS L'INDUSTRIE CHIMIQUE

La Conférence générale de l'Organisation internationale du Travail,

S'étant réunie à Genève, le 3 juin 1937, en sa vingt-troisième session,

Considérant que la question de la réduction de la durée du travail dans l'industrie chimique constitue la cinquième question à l'ordre du jour de la session,

Confirmant le principe consacré dans la convention des quarante heures, 1935, comportant aussi le maintien du niveau de vie des travailleurs,

Considérant qu'il est désirable que ce principe soit appliqué par accord international à l'industrie chimique ;

adopte, ce jour de juin mil neuf cent trente-sept le projet de convention ci-après

ARTICLE 1

Aux fins de la présente convention l'expression « produits chimiques » désigne les produits énumérés ci-après

- i) acides, bases, sels,
- ii) chlore et ses dérivés,
- iii) soufre, phosphore, arsenic, antimoine, iode, brome, fluor et leurs composés,
- iv) alumine (Al_2O_3) et autres dérivés chimiques de l'aluminium ;
- v) cyanures,
- vi) carbure de calcium,
- vii) composés azotés,
- viii) engrais artificiels, chimiques ou organiques,
- ix) produits de la distillation des goudrons de houille,
- x) explosifs ;
- xi) allumettes,
- xii) gaz comprimés, liquéfiés et dissous,
- xiii) charbons artificiels,
- xiv) pierres précieuses artificielles
- xv) produits du raffinage des huiles minérales,
- xvi) matières grasses organiques, autres que les graisses et huiles alimentaires — savons bougies, glycérine
- xvii) alcools industriels,
- xviii) produits de la distillation du bois ;

- (xix) dyeing and tanning extracts ;
- (xx) resins, turpentine and camphor
- (xxi) rubber products ;
- (xxii) starch and paste ;
- (xxiii) glue and gelatine ;
- (xxiv) intermediate organic products, such as ethers and acetic, formic oxalic tartaric and citric acids ;

- (xxv) chemical products used for pharmaceutical purposes ,
- (xxvi) chemical photographic products ,
- (xxvii) perfumes and other aromatic substances ,
- (xxviii) organic and inorganic dyestuffs ,
- (xxix) lacquers, varnishes, paints, pigments and inks ;
- (xxx) chemical products for cleaning and polishing :
- (xxxi) radio-active products

ARTICLE 2

1. This Convention applies to :

- (a) persons employed in an undertaking which is wholly or mainly engaged in the manufacture of chemical products, including persons employed in any branch of such an undertaking which branch is not wholly or mainly engaged in the manufacture of chemical products, and
- (b) persons employed in a branch of an undertaking which branch is wholly or mainly engaged in the manufacture of chemical products, even though the undertaking is not wholly or mainly engaged in the manufacture of chemical products.

2. In any case in which it is doubtful whether an undertaking or branch of an undertaking is wholly or mainly engaged in the manufacture of chemical products, the question of whether the undertaking or branch is to be regarded as being wholly or mainly engaged in the manufacture of such products shall be determined by the competent authority after consultation with the organisations of employers and workers concerned where such exist

3 This Convention applies to persons employed in both public and private undertakings

ARTICLE 3

The competent authority may, after consultation with the organisations of employers and workers concerned where such exist exempt from the application of this Convention .

- (a) persons employed in undertakings in which only members of the employer's family are employed ; and

- xix) extraits tinctoriaux et tannants ,
- xx) résines, terebenthine, camphre ,
- xxi) produits en caoutchouc ,
- xxii) amidon et fécule ;
- xxiii) colles et gélatines ,
- xxiv) produits organiques intermédiaires tels que éthers.
acides acétique, formique, oxalique, tartrique,
citrique ,
- xxv) produits chimiques servant a la pharmacie ,

- xxvi) produits chimiques photographiques ,
- xxvii) parfums et autres substances aromatiques ,
- xxviii) matières colorantes, organiques et inorganiques ,
- xxix) laques, vernis, couleurs, pigments encres ,
- xxx) produits chimiques d'entretien et de nettoyage ,
- xxxi) produits radio-actifs

ARTICLE 2

1 La présente convention s'applique .

- a) aux personnes occupées dans tout établissement consacré exclusivement ou principalement à la fabrication de produits chimiques, y compris les personnes occupées dans toute branche dudit établissement, alors même que cette branche n'est pas consacrée exclusivement ou principalement à la fabrication de produits chimiques ;
- b) aux personnes occupées dans toute branche d'établissement consacrée exclusivement ou principalement à la fabrication de produits chimiques, même lorsque les établissements dont dépendent lesdites branches ne sont pas eux-mêmes consacrés exclusivement ou principalement à la fabrication de produits chimiques

2 Dans tous les cas où il n'apparaît pas certain qu'un établissement ou une branche d'établissement est consacré exclusivement ou principalement à la fabrication de produits chimiques, la question de savoir si ledit établissement ou ladite branche doit être considéré comme consacré exclusivement ou principalement à la fabrication de tels produits doit être tranchée par l'autorité compétente, après consultation des organisations d'employeurs et de travailleurs intéressées, s'il en existe

3. La présente convention s'applique aux personnes employées dans les établissements tant publics que privés.

ARTICLE 3

L'autorité compétente peut, après consultation des organisations d'employeurs et de travailleurs intéressées, s'il en existe, exempter de l'application de la présente convention

- a) les personnes employées dans les établissements où sont seuls occupés les membres de la famille de l'employeur ,

- (b) persons who by reason of their special responsibilities or qualifications are customarily regarded as not subject to the normal rules governing hours of work.

ARTICLE 4

For the purpose of this Convention the term "hours of work" means the time during which the persons employed are at the disposal of the employer and does not include rest periods during which they are not at his disposal.

ARTICLE 5

1. The hours of work of persons to whom this Convention applies shall not exceed an average of forty per week

2. In the case of persons who work in successive shifts on processes required by reason of the nature of the process to be carried on without a break at any time of the day, night or week, weekly hours of work may average forty-two

3. The competent authority shall after consultation with the organisations of employers and workers concerned where such exist, determine the processes to which paragraph 2 of this Article applies.

4. Where hours of work are calculated as an average the competent authority shall, after consultation with the organisations of employers and workers concerned where such exist determine the number of weeks over which the average may be calculated and the maximum number of hours that may be worked in any week.

5. Provided that the competent authority may exempt from any determination made by it in pursuance of the preceding paragraph any persons in respect of whom it is satisfied that the number of weeks over which the average may be calculated and the maximum number of hours that may be worked in any week are satisfactorily and effectively limited by collective agreement or arbitral award.

ARTICLE 6

1 The competent authority may, by regulations made after consultation with the organisations of employers and workers concerned where such exist, provide that the limits of hours authorised by the preceding article may be exceeded to an extent prescribed by such regulations in the following cases :

- b) les personnes qui, en raison de leur responsabilité ou de leur compétence particulières, sont considérées, selon la coutume, comme n'étant pas soumises aux règles normales sur la durée du travail

ARTICLE 1

Aux fins de la présente convention l'expression « durée du travail » signifie le temps pendant lequel le personnel est à la disposition de l'employeur, et ne comprend pas les repos pendant lesquels il n'est pas à sa disposition

ARTICLE 5

1 La durée du travail des personnes auxquelles s'applique la présente convention ne doit pas dépasser en moyenne quarante heures par semaine.

2 Pour les personnes qui travaillent par équipes successives à des travaux dont le fonctionnement continu doit, en raison même de la nature du travail, être nécessairement assuré sans interruption à aucun moment du jour, de la nuit et de la semaine, la durée hebdomadaire du travail peut atteindre une moyenne de quarante-deux heures

3 L'autorité compétente déterminera, après consultation des organisations d'employeurs et de travailleurs intéressées, s'il en existe, les travaux auxquels s'applique le paragraphe précédent du présent article

4 Quand la durée du travail est calculée d'après une durée moyenne, l'autorité compétente doit, après consultation des organisations d'employeurs et de travailleurs intéressées, s'il en existe, fixer le nombre de semaines sur lequel cette durée moyenne peut être calculée, ainsi que le nombre maximum des heures de travail hebdomadaires

5 Toutefois, l'autorité compétente peut exempter de l'application de toute prescription édictée en vertu du paragraphe précédent les personnes pour lesquelles elle admet que le nombre de semaines sur lequel la durée moyenne peut être calculée ainsi que le nombre maximum des heures de travail hebdomadaires se trouvent limités d'une façon satisfaisante et effective par des contrats collectifs ou des sentences arbitrales

ARTICLE 6

1 L'autorité compétente peut, par des règlements pris après consultation des organisations d'employeurs et de travailleurs intéressées s'il en existe, permettre de dépasser les limites des heures de travail autorisées en vertu de l'article précédent, dans une mesure fixée par lesdits règlements dans les cas suivants .

- (a) in the case of persons employed on preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the undertaking, branch or shift.
- (b) in the case of persons employed in occupations which by their nature involve long periods of inaction during which the said persons have to display neither physical activity nor sustained attention or remain at their posts only to reply to possible calls;
- (c) in cases where the continued employment of certain persons is necessary for the completion of an operation which for technical reasons cannot be interrupted;
- (d) in the case of persons employed in connection with the transport, delivery or loading or unloading of goods: and
- (e) in the case of work in connection with the introduction of any new process or the taking into use of any new machinery.

2. National laws or regulations may permit the limits of hours authorised by the preceding Article to be exceeded in the cases enumerated in the preceding paragraph of this Article to the extent fixed by any collective agreement or arbitral award by means of which, in the opinion of the competent authority the hours that may be worked in the said cases are satisfactorily and effectively limited.

ARTICLE 7

The limits of hours authorised by the preceding Articles may be exceeded, but only so far as may be necessary to avoid serious interference with the ordinary working of the undertaking

- (a) in case of accident actual or threatened or in case of urgent work to be done to machinery or plant, or in case of *force majeure*,
- (b) in order to make good the unforeseen absence of one or more members of a shift

2 The employer shall notify the competent authority without delay of all time worked in virtue of this Article and of the reasons therefor

ARTICLE 8

1. The competent authority may permit the limits of hours authorised by the preceding Articles to be exceeded subject to the conditions that :

- a) dans le cas de personnes employées a des travaux préparatoires ou complémentaires qui doivent être nécessairement exécutés en dehors des limites assignées au travail général de l'établissement, de la branche d'établissement ou de l'équipe ,
- b) dans le cas de personnes employées à des occupations qui, par leur nature, comportent de longues périodes d'inactivité pendant lesquelles ces personnes n'ont à déployer ni activité matérielle ni attention soutenue, ou ne restent a leur poste que pour répondre a des appels éventuels ,
- c) dans le cas ou la prolongation du travail de certaines personnes est nécessaire pour l'achèvement d'une opération dont l'interruption est techniquement impossible ,
- d) dans le cas de personnes employées à des opérations se rapportant au transport, à la livraison, au chargement ou au déchargement de marchandises ,
- e) dans le cas de travaux se rapportant à l'essai de toute opération nouvelle ou a la mise en exploitation de tout appareil nouveau

2 La législation nationale peut permettre, dans les cas énumérés au paragraphe précédent du présent article, le dépassement des limites des heures de travail autorisées en vertu de l'article précédent, dans la mesure fixée par tout contrat collectif ou toute sentence arbitrale qui, de l'avis de l'autorité compétente, limite d'une façon satisfaisante et effective les heures de travail qui peuvent être effectuées dans de tels cas

ARTICLE 7

1 Les limites des heures de travail autorisées en vertu des articles précédents peuvent être dépassées, mais uniquement dans la mesure nécessaire pour éviter qu'une gêne sérieuse ne soit apportée à la marche normale de l'établissement

- a) en cas d'accident survenu ou imminent ou en cas de travaux d'urgence a effectuer aux machines ou à l'outillage, ou en cas de force majeure ,
- b) pour faire face à l'absence imprévue d'une ou plusieurs personnes d'une équipe

2 L'employeur doit faire connaître sans délai à l'autorité compétente toutes heures de travail effectuées en vertu du présent article et les raisons qui les justifient

ARTICLE 8

1 L'autorité compétente peut permettre le dépassement des limites des heures de travail autorisées en vertu des articles précédents sous réserve des conditions suivantes

- a) all time worked in virtue of this Article shall be regarded as overtime and shall be remunerated at not less than one and a quarter times the normal rate ,
- (b) no person shall be employed in virtue of this Article for more than one hundred hours of overtime in any year , and
- (c) there shall be no consistent working of overtime.

2 The competent authority shall only grant such permission in accordance with regulations made after consultation with the organisations of employers and workers concerned where such exist

3 The regulations referred to in the preceding paragraph shall prescribe :

- (a) the procedure to be followed by the employer for obtaining permission to work overtime in virtue of this Article ; and
- (b) the maximum number of hours for which the competent authority may grant such permission and the minimum rate of remuneration to be paid for such hours

4 National laws or regulations may provide that, subject to fulfilment of the conditions stated in paragraph 1 of this Article the limits of hours authorised by the preceding Articles may be exceeded in virtue of collective agreements or arbitral awards by means of which in the opinion of the competent authority, recourse to overtime is satisfactorily and effectively regulated

ARTICLE 9

In order to facilitate the effective enforcement of the provisions of this Convention, every employer shall

- (a) notify in a manner approved by the competent authority by the posting of notices or otherwise
 - (i) the hours at which work begins and ends ,
 - (ii) where work is carried on by shifts, the hours at which each shift begins and ends ,
 - (ii) where a rotation system is applied a description of the system including a timetable for each person or group of persons ,
 - (iv) the arrangements made in cases where the average duration of the working week is calculated over a number of weeks , and
 - (v) rest periods in so far as these are not reckoned as part of the working hours ;

- a) toute heure de travail effectuée en vertu du présent article doit être considérée comme heure supplémentaire et rémunérée à un taux majoré d'au moins vingt-cinq pour cent par rapport au salaire normal ;
- b) aucune personne ne peut, en vertu du présent article, être employée plus de cent heures supplémentaires par an ,
- c) il ne doit pas être fait un usage constant des heures supplémentaires

2 L'autorité compétente ne doit accorder une telle autorisation que conformément à des règlements pris après consultation des organisations d'employeurs et de travailleurs intéressés, s'il en existe

3 Les règlements mentionnés au paragraphe précédent doivent prescrire .

- a) la procédure à suivre par l'employeur pour obtenir l'autorisation d'effectuer des heures supplémentaires en vertu du présent article ,
- b) le nombre maximum d'heures supplémentaires pour lesquelles l'autorité compétente peut accorder une telle autorisation ainsi que le taux minimum de rémunération qui doit être payé pour ces heures supplémentaires

4 La législation nationale peut prévoir, sous réserve que les conditions stipulées au paragraphe 1 du présent article se trouvent remplies, que les limites des heures de travail autorisées par les articles précédents soient dépassées en vertu de contrats collectifs ou de sentences arbitrales qui de l'avis de l'autorité compétente, réglementent d'une façon satisfaisante et effective le recours aux heures supplémentaires

ARTICLE 9

En vue de faciliter l'application effective des dispositions de la présente convention chaque employeur doit

- a) faire connaître, selon un mode approuvé par l'autorité compétente, au moyen d'affiches apposées dans l'établissement ou d'une autre manière .
 - i) les heures auxquelles commence et finit le travail ,
 - ii) si le travail s'effectue par équipes, les heures auxquelles commence et finit le tour de chaque équipe .
 - iii) s'il est fait application d'un système de roulement, une description de ce système, y compris un horaire de travail pour chaque personne ou groupe de personnes ;
 - iv) les dispositions prises dans les cas où la durée hebdomadaire moyenne du travail est calculée sur plusieurs semaines ,
 - v) les repos, dans la mesure où ils ne sont pas considérés comme faisant partie des heures de travail ;

- (b) keep a record in the form prescribed by the competent authority of all overtime worked in virtue of Article 8 and of the payments made in respect thereof

ARTICLE 10

Any Member may suspend the operation of the provisions of this Convention during any emergency which endangers the national safety.

ARTICLE 11

During a period which shall not exceed three years from the coming into force of this Convention for the Member concerned, the competent authority may approve transitional arrangements in virtue of which

- (a) the reduction of hours of work to the limits authorised by the preceding Articles may be accomplished by stages during the said period,
- (b) specified classes of workers or undertakings may be exempted from all or any of the provisions of the Convention during the said period.

ARTICLE 12

The annual reports submitted by Members upon the application of this Convention shall include more particularly full information concerning .

- (a) exemptions made in virtue of Article 3 (b),
- (b) determinations made in pursuance of Article 5, paragraph 3 and of Article 5, paragraph 4,
- (c) regulations made in virtue of Article 6 paragraph 1,
- (d) the extent to which overtime is worked in virtue of Article 8,
- (e) transitional arrangements approved in virtue of Article 11, and
- f) any collective agreements or arbitral awards relied upon in virtue of Article 5 paragraph 5 Article 6, paragraph 2, or Article 8, paragraph 4 and the grounds upon which the competent authority regards such agreements or awards as satisfactory and effective

- b) inscrire sur un registre, selon le mode approuvé par l'autorité compétente, toutes les heures de travail qui sont effectuées en vertu de l'article 8 ainsi que le montant de leur retribution

ARTICLE 10

Tout Membre peut suspendre l'application des dispositions de la présente convention pendant la durée de tout événement présentant un danger pour la sécurité nationale

ARTICLE 11

Pendant une période de trois ans au plus à compter de l'entrée en vigueur de la présente convention à l'égard de chaque Membre, l'autorité compétente peut approuver des arrangements transitoires autorisant :

- a) la réduction, par étapes, pendant ladite période, de la durée du travail jusqu'aux limites autorisées en vertu des articles précédents ;
- b) des exemptions partielles ou totales des dispositions de la présente convention pendant ladite période, concernant certaines catégories de travailleurs ou d'établissements

ARTICLE 12

Les rapports annuels soumis par les Membres sur l'application de la présente convention doivent comprendre des renseignements complets concernant notamment

- a) les exemptions autorisées en vertu de l'article 3, alinéa b) ,
- b) les déterminations opérées conformément à l'article 5, paragraphe 3, et à l'article 5, paragraphe 4 ;
- c) les règlements pris en vertu des dispositions de l'article 6, paragraphe 1 ;
- d) la limite dans laquelle il est fait usage des heures supplémentaires accordées en vertu de l'article 8 ,
- e) les arrangements transitoires approuvés en vertu de l'article 11 ,
- f) tout contrat collectif ou toute sentence arbitrale dont il serait fait usage en vertu des articles 5, paragraphe 5 ; 6, paragraphe 2, et 8, paragraphe 4, ainsi que les raisons pour lesquelles l'autorité compétente considère de tels contrats collectifs ou de telles sentences comme satisfaisants et effectifs

ARTICLE 13

Nothing in this Convention shall affect any law, award, custom or agreement between employers and workers which ensures more favourable conditions than those provided by this Convention

ARTICLE 13

Rien dans la présente convention n'affecte toute loi, toute sentence arbitrale, toute coutume, ou tout accord entre les employeurs et les travailleurs qui assure des conditions plus favorables que celles prévues par la présente convention

APPENDIX

REPORT OF THE PREPARATORY TECHNICAL TRIPARTITE MEETING ON THE REDUCTION OF HOURS OF WORK IN THE CHEMICAL INDUSTRY

INTRODUCTION

At its Nineteenth Session (1935) the International Labour Conference adopted a resolution in which it invited the Governing Body of the International Labour Office to consider the desirability of placing on the Agenda of the 1936 Session of the Conference the question of the reduction of hours of work in the chemical industry

This resolution was discussed by the Governing Body at its session in February 1936, but it did not see its way to placing the question on the Agenda of the 1936 Session of the Conference. It decided instead to place it on the Agenda of the 1937 Session.

At its next session, April 1936, the Governing Body authorised the Office to convene a Preparatory Technical Tripartite Meeting on the Reduction of Hours of Work in the Chemical Industry, to which the States Members of the Organisation with over 40,000 persons employed in the industry would be invited. In addition other States with a chemical industry of importance could send representatives. Each Government taking part in the Meeting would be requested to designate three delegates, one for the Government, one for employers and one for workers, each of these delegates being entitled to bring advisers who would have the right to speak but not to vote. The Governing Body also decided that it would be represented at the Meeting by three of its members, one for each group.

The Preparatory Technical Tripartite Meeting on the Reduction of Hours of Work in the Chemical Industry was held at the International Labour Office in Geneva from 7 December to 11 December 1936.

The following 11 States were represented: United States of America, Belgium, British Empire, Chile, Czechoslovakia, France, Japan, Netherlands, Norway, Spain, Turkey. Among these the following 6 States sent a complete tripartite delegation: Belgium, the British Empire, Czechoslovakia, France, Netherlands and Spain. Norway sent an employers' delegate and a workers' delegate, and the United States, Chile, Japan and Turkey each a Government delegate.

The Governing Body of the International Labour Office was represented by Mr Li Ping-Heng (China) for the Government members, Mr Oersted (Denmark) for the employer members and by Mr Kupers (Netherlands) for the worker members.

The total number of delegates at the Meeting with the right to vote was 27. In addition 30 advisers took part in the work of the Meeting, which was thus attended by 57 persons in all ¹

I — OPENING OF THE MEETING

The first plenary sitting was opened by Mr Li Ping-Heng (representative of the Government members of the Governing Body), who reviewed the conditions under which it had been decided to hold the Meeting.

The Meeting elected the following officers: President, Mr VERVAECK (Belgian Government delegate), Vice-Presidents, Mr KITAOKA (Japanese Government delegate), Mr OERSTED (representative of the employer members of the Governing Body) and Mr DUKES (British workers' delegate).

To assist the officers the Meeting appointed a General Purposes Committee consisting of the President and Vice-Presidents, the three representatives of the Governing Body and five members from each group, as follows:

Government group United States, British Empire, Czechoslovakia, France, Netherlands

Employers' group British Empire, Belgium, Czechoslovakia, Netherlands, Norway, substitute British Empire

Workers' group Belgium, British Empire, Czechoslovakia, France, Netherlands, and as substitutes, Netherlands, Norway

The Meeting set up a Drafting Committee composed of the President and Vice-Presidents and two members from each group, consisting of the representatives of the following countries:

Government group United States, Netherlands

Employers' group Belgium, British Empire

Workers' group British Empire, Netherlands, substitute France

On the proposal of the General Purposes Committee, the Meeting accepted the Standing Orders prepared by the International Labour Office, which had already been used during the Preparatory Technical Tripartite Meeting for the Printing and Kindred Trades.

Before the Meeting began its discussions, the Director of the International Labour Office made a statement as to its scope. He reminded the delegates that two documents had been put before them. The first was a printed document in proof form which gave a summary survey of the actual hours worked in the chemical industry in different countries. It formed part of the Report which the Office was to submit to the Session of the International Labour Conference in June 1937. The Meeting had no responsibility for this document, but the information that the Office could obtain from the delegates present would be of assistance in preparing the final Report. The second

¹ The complete list of delegations will be found at the end of the Report.

document dealt more particularly with the question of the definition of the chemical industry. The Director hoped that the Meeting would throw some light on this very difficult question.

The Director also made it clear that it was not the object of the Meeting to arrive at any conclusions on the subject of hours of work, but rather to examine the whole question in its broadest aspects: the incidence of unemployment, the effects of mechanisation, the economic and technical problems involved, etc.

The British Government delegate then made a statement to the effect that in the opinion of his Government the experts should not confine their attention to the question of the 40-hour week, which fell rather within the competence of the Conference, but that they should also contribute their knowledge with regard to the associated questions of wages and other conditions of work.

II — GENERAL DISCUSSION

The meeting decided to begin with a general discussion. Four sittings were devoted to this discussion. Twenty-seven speakers took part, representing the Governments of the United States, Belgium, British Empire, Czechoslovakia, France, and Spain, the employers of Belgium, British Empire, Czechoslovakia, and the Netherlands, the workers of Belgium, British Empire, Czechoslovakia, France and the Netherlands, and the representatives of the employers' members and workers' members of the Governing Body.

The representative of the British employers opened the discussion with a declaration that he associated himself entirely with the reservations of the British Government in regard to the scope of the Conference. He stated further that in the opinion of British employers it was impossible to separate the hours question from the wages and other problems affecting the industry. In his opinion, the value of the Conference had been prejudiced by the placing of the question of a Convention on the Agenda of the main Conference in June 1937, it would have been better to have given the preparatory Conference full freedom without prejudicing the results of its deliberations. In any event, the British employers, having in mind the established practice of collective agreements in their country, were opposed fundamentally to the acceptance of any alternative arrangement such as a Convention, which would tend to weaken or destroy existing methods of negotiation.

In reiterating some of the principal objections to the idea of a Convention, the British employers' representative mentioned the experience of various countries in connection with the Washington 48-hour Convention, which proved conclusively the impossibility of framing an International Convention on hours of work which could be universally ratified and uniformly observed and enforced.

Special difficulties would arise in countries which were highly industrialised and depended largely on export trade. British employers maintained that it was impossible to achieve the real object of a Convention so long as the wages question continued to be divorced from the question of hours.

The speaker added that if the Conference could proceed to a thorough objective examination of the conditions obtaining in the industry without the shadow of a Convention in June 1937, the British employers would be very glad to co-operate to the full

A — *Employers' Arguments*

Additional arguments put forward by the employers' representatives of various countries may be summarised as follows

The reduction of hours to 40 per week was originally contemplated in 1932 when the question of finding a remedy for unemployment became urgent. Since that time, however, the economic situation had changed, unemployment had diminished, and in some countries a shortage of skilled labour was beginning to be felt

Already in some cases it had only been possible to avoid the effects of an actual shortage of skilled labour by the adoption of special measures

The reduction of hours of work without any reduction in earnings would increase the cost of production, which would place the chemical industry in a difficult economic situation

The incidence on the cost of production would be all the greater and, except where a system of shifts could be worked, any reduction of hours would involve increased capital expenditure on new plant and equipment

Also, since in some countries the chemical industry depended mainly upon exports, the proposed reduction of hours in any country could place it in a position of serious economic disadvantage compared with countries where such a measure was not in force. This applied particularly to competition from Germany (the second largest chemical manufacturing country in the world) whose absence from the discussions rendered impossible any effective international collaboration on this question

Certain branches of the chemical industry manufacture products for consumption which are replaceable by others, the manufacture of which would not be affected by the reduction of hours. This might, for instance, apply to the gas industry if it were held to be part of the chemical industry for purposes of hours reduction. The result in such a case would be that in some countries other forms of light, heat, and power might be substituted for gas

Also a reduction of hours was not always possible on technological grounds. The industry was one of unusual complexity because of the enormous variety of manufactures and processes carried on. Some processes were intermittent and others were continuous, the nature, progress and duration varied considerably and depended upon highly technological factors which rendered hours regulation peculiarly difficult

It was also suggested that any reduction of hours which involved the introduction of additional shifts would increase the incidence of industrial accidents, as it had been observed that accident frequency rose at the period of shift changeover

International agreements were interpreted differently in the different countries

In addition, the Belgian employers' delegate submitted the following observations

The selling prices imposed on producers in his country as a result of foreign competition had fallen tremendously and in Belgium there had not been stability of prices during the depression, the very opposite was the case

It was inaccurate to state as certain delegates did that conditions in the chemical industries made inevitable the application of the 40-hour week In Belgium the chemical industries did not work in especially unhealthy, dangerous, or noxious conditions Unhealthiness was not a characteristic of the chemical industries Besides, the attention of Belgian employers had long been drawn to the factors of safety and hygiene in the chemical as well as in other industries They had taken, and were continuing to take, safety measures where they were necessary The shortening of hours of work was only one of numerous aspects of the question, and certainly one of the least important

The independence of each branch of chemical manufacture was an essential necessity In the chemical industry, everything was independent and specific — raw materials, the physical conditions of manufacture, the market for manufactured products, competition, etc There were as many extremely different chemical industries as there were different products

The multiplicity and diversity of the chemical industries were facts It was therefore not desirable to legislate uniformly for that industry The problems must be treated separately The term "chemical industry" did not correspond to anything in reality There was not one single chemical industry

B — *Workers' Arguments*

The arguments submitted by the workers' representatives were as follows

The statistics on which the employers base their argument that unemployment is definitely declining are open to question, for very often they have been compiled at a time when seasonal fluctuations in employment showed the situation in its most favourable light, moreover, they often leave out of account workers on short time

In some countries unemployment statistics have ceased to provide a reliable basis for comparisons In any case, these statistics cannot give an idea of the number of workers who have had to move from one industry to another where wages are lower and where they have to do work for which they are not trained

The risk of a shortage of skilled labour cannot be used as an argument, for one of the essential characteristics of the chemical industry is that the workers in the chemical industry, although highly specialised, do not have to serve a long apprenticeship

The chemical industry is one of those in which labour costs form a very small proportion of the cost of production Moreover,

rationalisation measures by reducing the number of workers to a considerable extent, have made the proportion of labour costs still smaller. The increase in labour costs that must follow on the reduction of hours could therefore only slightly affect the total cost of production.

It is open to doubt whether the effect on the cost of production of a reduction of hours to 40 in the week would be such as to endanger the industry, for whenever hours of work have been reduced the employers declared that they would be placed in an untenable situation, and yet industry has never thereby been ruined.

The workers' representatives pointed out that humanity as a whole should benefit by the advances of civilisation and more particularly of the advantages resulting from technical progress, especially as this progress was not due to the employers alone but to the collaboration of all wage earners and technical workers and engineers.

The fact that a reduction of hours to 40 in the week is possible is shown by the action of certain countries which have already established or are now introducing legislation prescribing this limitation of hours. Countries that thus pave the way for further progress may find themselves in a difficult economic situation if the hours of work in other countries are kept higher than 40.

The British workers' delegate stated that in Great Britain, with its system of collective agreements, wages cannot be dissociated from hours, and it must be understood that when the British workers speak out in support of the 40-hour week they mean a 40-hour week without reduction of the existing weekly earnings.

The spread of capital in an international form by means of trusts whereby not only the interest but also the capital is often held in common, creating a *fact* unity that goes beyond the tariff barriers, and as to the concentration of manufacturing processes from one country to another, considerably reduces the extent of competition, and therefore the danger for the workers in countries which have already introduced a reduction of hours of production transferred to the branches of industry in other countries.

fumes given off in the workshops. Excessive fatigue should also be avoided since it prevents the worker from protecting himself against accidents. It is for this reason that the chemical industry appears to be particularly suited to be one of the first in which a reduction of hours should be applied.

The frequency of accidents when shifts are changed over is due to the fact that when the worker comes to the end of his spell of work he is in a state of fatigue which diminishes his power to protect himself. A reduction of hours would overcome this disadvantage.

The Sunday rest day must be observed and manual labour should only be authorised on Sunday if it is indispensable for chemical reasons.

Peaceful negotiations between employers and workers are a fundamental condition of social progress, and the employers would certainly not wish the workers to be compelled to resort to less peaceful methods as was the case in some countries this summer.

A feeling of discouragement might be created among the workers (and in particular among the workers in the chemical industry) if this discussion were not to produce tangible results.

C — *Government Declarations*

The Government representatives of the United States, Belgium, British Empire, Czechoslovakia, France and Spain made statements explaining their position with regard to the work of the Meeting as a whole.

The *Government representative of the United States* stated that in spite of the large domestic production of chemicals the United States was by no means self-sufficient, despite prohibitive tariffs, embargoes and other trade barriers the United States was at present the third largest importer of chemicals in the world and was entirely dependent upon foreign nations for adequate supplies of a large number of important raw materials in the chemical industry. It was precisely in the chemical industry that the nations of the world had been most closely knit together in inter-company, inter-commodity, inter-process, inter-industry and international joint-cost competition. The chemist had re-drawn the lines and changed the international and inter-continental flows of commerce.

New intentions and substitutes might, he said, cause sudden damage to established enterprise unless guidance facilitated the process of adjustment. Hence business has of its own volition made many attempts to minimise the competitive risks that exist in the chemical industry. Faced with the sometimes urgent desirability of standardising prices, stabilising market arrangements and adjusting production to consumption in the chemical industry, employers have for years negotiated international Conventions or cartel agreements throughout the world.

At present in the United States the 40-hour week in all but two branches of the chemical industry is not merely a theory. For four years it has been a fact. Moreover, in the very branches where the work week is now shortest, production, employment, wage rates and

the facts and then drawing conclusions from that information. In this connection, he referred to the value of the various publications of the Office which were mainly collections of facts, and he also referred to the statement made by the Government representative of the United States which contained a wealth of information and suggestions. He did not wish to make any statement with regard to a possible 40-hour Convention in the chemical industry because in his opinion it was for the general Conference to deal with that question. In conclusion he stated that, after having consulted various members of the Meeting, he did not intend to press the suggestion he had made prior to the general discussion concerning the examination of the question of the delimitation of the chemical industry by a small Committee of Experts.

The *Government representative of Czechoslovakia* explained that his country was in favour of reducing hours of work in industry as a whole. The 40 or 42-hour week had already been introduced by collective agreement in several branches of industry, more especially for those manufacturing artificial silk, for distilleries, match factories, etc. However, Czechoslovakia was essentially an exporting country and therefore the Government considered that the general reduction of hours of work by legislation could be carried out only in accordance with the conditions of employment in competing countries. Czechoslovakia was the first industrial State to ratify the Washington Convention on the 48-hour week and as a result industry in Czechoslovakia had to struggle against serious competition from the industries of States in which conditions of production were more favourable, not only on account of the fact that hours of work were longer, but also because transport costs were lower. Consequently the Czechoslovak Government would not be able to reduce hours of work in industry in general still further or to reduce hours in certain particular industries except on the express condition that the same step would be taken simultaneously by the leading industrial countries.

The *French Government representative* reminded the Meeting that France introduced the 40-hour week by the Act of 21 June 1936. He outlined the method adopted in this legislation, which is to be applied industry by industry by means of Decrees. The introduction of the 40-hour week in the chemical industry was particularly justified because that industry was essentially one of the most unhealthy ones. From the humanitarian and social points of view, the 40-hour week was also necessary in order to ensure that the workers had a reasonable rest and opportunities for developing family life. In the international field it was essential that agreements concerning hours of work in the chemical industry should be formally established so as to prevent competition, which would be harmful to all concerned. It would in his opinion be particularly easy to achieve this in the chemical industry because of the numerous international economic agreements that already existed in it.

The *Spanish Government representative* pointed out that the Spanish Republic intended to remain in the vanguard of progress and that all its laws and labour agreements were based on a considerable

reduction in hours of work which in its opinion was necessary both for humanitarian and for social reasons and which had become indispensable on account of the progress of mechanisation and the consequent unemployment. He also considered that the reduction in hours of work in the chemical industry should be carried out without any change in wages which were already merely sufficient to ensure the subsistence of the worker.

III — GENERAL CONSIDERATIONS ON THE DISCUSSION

Before the end of the general discussion, the representatives of the workers' and employers' members of the Governing Body gave their views on the general problem of the reduction of hours of work.

According to the workers' representative of the Governing Body this measure should be considered as a means of overcoming the technological unemployment which was at present very widespread in most industrial countries. He considered that this unemployment was due among other things to the fact that the technical progress made in recent years had not been accompanied by a sufficient reduction in hours of work. In spite of the fact that in several countries trade had revived considerably above the level of 1929, there were still millions and millions of unemployed workers.

It was in the interest of the community as a whole to reabsorb the unemployed as far as possible. With regard to the fixing of wages and working conditions in general, as it would be difficult to reach an international agreement, he thought it wiser to leave it to the national organisations to regulate these matters by collective bargaining, and more particularly by collective agreements. It was certainly regrettable that Germany was not participating in the discussion, but it was not his business to reproach her for not proceeding with the efforts to reduce unemployment.

If the employers were to meet the demand for a 40-hour week, it was by no means certain that social peace would be ensured for a considerable period of years. It could not be said that the employers were systematically opposed to social progress, for in 1919, in many countries, they had voluntarily granted the workers an 8-hour day and a 48-hour week, which meant a very considerable reduction in hours of work, and the employers had frequently expressed themselves as being in favour of certain international Conventions, such as those concerning holidays with pay, the weekly rest, etc. The reason why the employers were now opposed to the 40-hour week was that they did not consider that it represented social progress or that it constituted a remedy for unemployment.

It had also been said, he continued, that the workers constituted the great mass of the consumers, but it must not be forgotten that there were also large numbers of consumers living on small pensions or incomes from investment, and that their purchasing power would be reduced if prices were to rise.

IV — DELIMITATION OF THE CHEMICAL INDUSTRY

A — *Employers' Declarations*

Before the discussion on the delimitation of the chemical industry opened, the employers' representative on the Governing Body made a statement on behalf of the employers' members similar to that already made by the British employers' representative, regretting that the Meeting had been called after the Governing Body had decided to place the question of the reduction of hours of work in the chemical industry on the Agenda of the International Labour Conference. In their opinion it would have been better to have called the experts together before this decision had been taken, particularly in view of the great difficulty of defining this industry. Had this course been taken, the employers' experts would not have hesitated in helping to define the industry. Now, however, they were faced with an accomplished fact and their participation in the discussion of this question of defining the industry might be interpreted as an acceptance by them of the principle of an international Convention concerning the 40-hour week in the industry. On the contrary, they maintained their strong opposition to that principle. They would, however, listen to the discussion and reserve their right to intervene if necessary, in order to correct any errors or to give any additional explanations. If they did so, it would be with the express reservation that their responsibility was in no way involved either by the definition drawn up by the Meeting or by any proposal for a Draft Convention.

At a later stage several of the workers' representatives expressed their surprise and regret at this decision. In the workers' opinion it was difficult for the other delegates to understand the attitude of the employers. In any case this attitude was not in harmony with the importance of the Meeting. Nevertheless, it would not prevent the workers' representatives from doing their duty and continuing to take

part in the discussions in the interests of the community of industry and of the workers

B — *Procedure*

Various suggestions were made at different stages concerning the procedure to be followed in preparing a definition of the chemical industry. First of all the British Government representative referring to his experience of the Meeting concerning the printing industry, suggested that the Meeting should take as a basis for discussion the Note prepared by the Office together with any written suggestions submitted by delegates. A small committee of experts might co-ordinate these texts and submit them to the Meeting which would take a decision on each point successively. This suggestion was at first approved by various representatives of Governments and workers and the Meeting provisionally decided to entrust this task to its General Purposes Committee. It subsequently appeared that most of the members of the Meeting preferred the question to be studied at plenary sitting. The British Government representative therefore withdrew his original proposal.

It was therefore the Meeting as a whole that considered the problem of delimiting the chemical industry taking as a basis the Note which was discussed point by point each member having the opportunity to make a proposal to extend or restrict the list of substances.

At the end of the discussion on the various points contained in the Note prepared by the Office the British Government representative presented a summary of the results obtained.

some part of the economic process from concentrating in its incidence upon labour upon employment, wages and hours of work, a floor of competition must be created, and working conditions will have to be standardised

Wherever employers have already demonstrated that international Conventions are possible in trade practices, they have laid themselves open to the argument that International Conventions in regard to labour practice are equally possible. The Government representative of the United States therefore declared himself in favour of a list, based on the scientific and economic criteria he had mentioned, which did not differ considerably from that prepared by the Office, except that it would include the production of artificial silk and the rubber industry

The Netherlands Government adviser expressed the opinion that it would be desirable to consider certain rules that might serve as a basis for the proposed delimitation. He proposed the following definition

"Such factories are to be regarded as 'chemical industry' in which chemical processes are applied for synthesis or for transformation of some chemical into another chemical or where products which can be defined chemically are isolated from a raw material"

The Meeting decided however that this definition was too wide to be taken into consideration

The Netherlands Government adviser suggested further that such industries where products are manufactured merely by mixing some chemical substances or by applying any other mechanical process, as is the case, for example, in the cosmetic and in the shoe-polish industries, etc., should not be classified under the heading of "chemical industry". He emphasised that only that part of a chemical works should be regarded as belonging to the chemical industry in which chemical processes are applied

The British workers' representative expressed the opinion that the nucleus of the chemical industry should include the operations or manufacturing processes given in the Office list, with the exception of the following products: aluminium and its derivatives, matches, compressed and liquefied gases, soap and candles, artificial silk, lacquers, varnishes and paint. The purpose of the Meeting, he pointed out, was to determine the scope of a Convention for reducing hours of work in the chemical industry. These proposed regulations should be in accordance with the trade union structure of Great Britain and should not extend to activities which, in that country, were dealt with by collective agreements that were quite separate from those for the chemical industry. He realised that this made it extremely difficult to delimit the chemical industry, and he thought it would be impossible to find a definition that would satisfy every country. It would therefore be preferable to adopt some other method, such as making a distinction between the heavy and light chemical industry and the other industries contained in the Office list. Every country would then be free to include in either of those branches such manufacturing processes as it considered desirable

This view was not shared by the other workers' representatives who favoured the extension of the scope of the proposed Convention so as to make it as comprehensive as possible; they wished in any case to add certain industries to the Office list. A statement to the same effect was made by the Government representative of the United States. He added that it was extremely important to include as many products, and therefore as many undertakings as possible so as to place over against the organised economic strength of the employers an adequate measure of bargaining power amongst the workers. In view of the relatively small number of workers employed in small undertakings, he considered that it would be essential to include as many large undertakings as possible for in such undertakings the workers tended to lose their personality.

In connection with the method of delimitation proposed by the British workers' representative, the Government representative of the British Empire pointed out that if one adopted the method of following the trade union structure and collective agreements of various countries the result would inevitably be not an international Convention but a series of national Conventions which are not now within the framework of this organisation. Moreover it would be impossible to apply this method in countries in which trade union activity or collective bargaining were undeveloped. As regards the question of large and small undertakings, European experience shows that the protection of the workers was more necessary in small undertakings. In many European countries moreover, small undertakings constituted a large proportion of the total so that the problem of conditions of employment in small undertakings was of real importance.

The Netherlands workers' adviser considered that in the examination of the scope of the proposed international Convention account should be taken more particularly of the extremely unhealthy nature of the chemical industry and of the fact that there were very few branches of that industry in which the worker could have any joy in his work. With regard to the first of these criteria the Chairman pointed out that the Ministry had to take into account not only the chemical industry

Acids, alkalis and salts — The Chairman explained that certain substances, such as synthetic ammonia and sulphate of ammonia, would be included, since the first was an alkali and the second a salt. In reply to a remark by the Belgian workers' representative he pointed out that the radium industry would be included because this substance is always obtained and stored in the form of a salt.

An exchange of opinions between the French Government adviser and the Chairman led to the conclusion that the manufacture of lime, which is an alkali, would not be covered, for it is a subsidiary process in the quarrying industry.

The text proposed by the Office was retained.

Chlorine and its derivatives — The French Government adviser raised the question whether salt pans should or should not be included in the chemical industry. In his opinion, which was shared by the Chairman, they should not. The French workers' adviser pointed out that the French classification of industries and occupations included salt refining in general and the refining of sodium chloride in particular as part of the chemical industry.

The Netherlands Government adviser asked whether the chlorinated hydrocarbons such as trichlorethylene, tetrachlorethane, etc., used for dissolving fats were included under this head. On this point the Chairman remarked that the discussion was merely on the production of chlorine and its derivatives and not on the uses to which they were put.

Sulphur, phosphorus, iodine, bromine, etc., and their derivatives — The Meeting decided to replace the word "derivatives" by the word "compounds", which was considered as being a wider term that would include under this head such substances as carbon di-sulphide and sesquisulphide of phosphorus.

The Netherlands Government adviser proposed to add to this item such substances as arsenic, antimony, and their derivatives and the halogens such as fluorine. He also suggested adding to the list certain other products such as phosgene, etc., the classification of which might be left to the International Labour Conference. The French workers' adviser supported these additions.

Aluminium and its derivatives, cyanides, calcium carbide, nitrogenous products not already mentioned — The Norwegian workers' representative proposed the insertion, after the words "aluminium and its derivatives" of the words "zinc, nickel and alloys of iron and steel (ferro-chrome, ferro-silica and ferro-manganese)". In support of this proposal he pointed out that in Norway these branches were covered by collective agreements considered as belonging to the chemical industry. The French Government representative stated that in France electro-chemical processes were considered as part of the metal trade. The Chairman explained that if the production of certain metals by electrolytic processes were included there would be a risk of including the whole of the metal industry. The British workers' representative opposed this addition and also opposed the inclusion of aluminium. The Netherlands workers' representative suggested the

rejection of the proposed addition so as not to give rise to fresh objections. The Norwegian workers' representative after pointing out that the Government representative of the United States had already expressed a similar point of view declared that he was willing not to insist on his proposal in this preparatory Meeting.

During the examination of the text of this Report, it became evident that there had been a misunderstanding in the course of the Meeting, owing to the fact that in the note prepared by the Office the French term "alumine" (Al_2O_3) was translated by the English term "aluminium" (Al). After an exchange of views on this subject, the Meeting agreed to give the following heading to this item: "*Alumina (Al_2O_3) and other chemical derivatives of aluminium*". However, the Norwegian workers' delegate wished to make clear that the production of aluminium (Al) should be included in a Convention relating to the chemical industry. This opinion was shared by the Government delegate of the United States.

Artificial fertilisers, chemical or organic — Adopted without comment.

Distillation of coal-tar — Adopted. The question of coke furnaces and gas works was left for examination later.

Explosives — Adopted without comment.

Metals — This item was adopted after a statement by the British Government representative, in which he recalled that British workers were in favour of excluding this item but that a report of 1931 concerning the fourth census of production in Great Britain included metal manufacture among the chemical and allied industries.

Compressed and liquefied gases — On the suggestion of the Chairman the Meeting decided to insert the word "dissolved".

Artificial leather,

Synthetic rubber,

Electricity, generated,

Other products of the chemical industry, such as dyes, soap, candles and

Artificial silk,

Artificially extracted natural rubber and extracts,

Artificially extracted vegetable oils,

Artificially extracted

Artificially extracted vegetable oils, and other products of the chemical industry.

made a distinction between workers engaged in chemical processes in the strict sense and those engaged in the manufacture of galenic preparations and he could not agree to the classification in the chemical industry of workers who were not covered by collective agreements concerning that industry

Photographic chemicals — Adopted without comment

Perfumery — The Chairman expressed the view that this item should cover the manufacture of synthetic perfumes but not the extraction of perfume from flowers, he therefore proposed to insert the word "synthetic". After a discussion on this point the Meeting adopted a proposal of the United States Government Representative to substitute for "perfumery" the more general expression "perfumes and other aromatic substances".

Dyestuffs — The Netherlands Government adviser pointed out that in his opinion this term included organic and inorganic dyestuffs

Lacquers, varnishes, paints and inks — It was understood that the term "paints" included white lead, zinc white, and lithopone — that is, that it included paints consisting of oxides and other intermediate metal products. At the request of the Government representative of the United States, the Meeting decided to insert after the word "paints" the word "pigments", by which he meant all kinds of products used to colour preparations intended for use in painting

Materials for cleaning, polishing, etc — The Meeting wished to make it clear that this referred to chemical products used for these purposes

Radio-active products — Adopted without opposition

Other products — The Meeting then went on to consider some other products with regard to which the Office wished to have the opinion of the experts concerning their inclusion or otherwise in the chemical industry. The following products were discussed.

Gas for lighting and heating — Varying opinions were expressed concerning the manufacture of gas for lighting and heating. During the general discussion the British employers' adviser had expressed his opposition to the inclusion of this item in the definition of the chemical industry, he had pointed out that this industry was essentially a public service and that the proportion of employees engaged in actual chemical operations was relatively small. The British workers' representative supported this view and pointed out that workers in the gas industry in Great Britain were covered by separate agreements and that even internationally workers in the gas industry were not organised along with chemical workers. The French Government representative expressed the view that there was no reason for including the distillation of wood and leaving out the distillation of coal. In any case, the gas industry was particularly unhealthy, and that was a further argument for including it in the chemical industry.

The workers' representatives, with the exception of the British workers, urged that gas and its by-products should be included in the

chemical industry because of the nature of the operations involved and because of their continuity which compelled workers to work on Sundays.

Rubber — During the general discussion the Belgian employers' representative had mentioned that the rubber industry could not be included in the chemical industry. The Netherlands and Belgian workers' advisers, on the other hand, requested that the rubber industry should be included, the latter pointed out that in Belgium the rubber industry was in fact a part of the chemical industry. The voting decided to include 'rubber products' in the chemical industry.

Artificial silk — During the general discussion the Belgian employers' representative had also mentioned that artificial silk could not be included in the chemical industry. The Netherlands workers' representative, however, asked that it should be added to the Office list. The Government representative of the United States had already expressed the same view. In this connection the representative of the Office reminded the Meeting that the Committee of the Twentieth Session of the Conference which dealt with the definition of the textile industry expressed the view that the textile industry should be defined as beginning in the case of artificial silk or other textile fibre with the process immediately succeeding the chemical production of the fibre. Consequently persons employed in the branches of the textile industry engaged in the chemical production of artificial silk or other textile fibres should not be considered as employed in the textile industry. The British workers' adviser noted the statement of the Government representative as being of great value. Although there were some doubts as to whether it would be possible to agree to the inclusion of the chemical process immediately preceding that it was included in the chemical industry, it was up to the employers.

The Meeting then decided to add to the list prepared by the Government the chemical production of artificial silk or other textile fibres.

principal product and by-product. These discriminations were influenced by price fluctuations, temporary economic conditions and the special conditions of a given country or district. The French Government representative also referred to the problem and proposed that whenever a department was merely a subsidiary of a large industry it should follow the classification of that industry for purposes of labour regulations.

Those problems were referred to on several occasions and from several points of view by various other members of the Meeting in the course of the discussion but no definite decision was taken. It is in any case a question affecting more particularly the application of the regulations concerning hours of work which will have to be considered at a later stage.

(Signed) Jacques VIVAREK
President

Geneva, 11 December 1936

LISTE DES MEMBRES DE LA RÉUNION
LIST OF THE MEMBERS OF THE MEETING

REPRÉSENTANTS DU CONSEIL D'ADMINISTRATION
REPRESENTATIVES OF THE GOVERNING BODY

Groupe gouvernemental Government group	(M. LI PING-HENG (Chine — China)
Groupe des employeurs Employers' group	(M. ORNSTED (Danemark — Denmark)
Groupe des travailleurs Workers' group	(M. KUPIERS (Pays-Bas — Netherlands)

Délégués et conseillers techniques des pays indiqués ci-après :
Delegates and advisers of the following countries :

ÉTATS-UNIS — UNITED STATES

DÉLÉGUÉ GOUVERNEMENTAL — GOVERNMENT DELEGATE
Prof. Theodor T. KRIES — Professor of Economics, Stanford University

CONSEILLERS TECHNIQUES — ADVISERS

Mr. Carter Goodrich — United States Labor Commissioner at Geneva
Mr. W. Elmer Guetter — Assistant United States Labor Commissioner
at Geneva

Conseillers techniques — Advisers

- M Louis GOBIET, Député, Secrétaire de la Centrale générale du bâtiment, de l'ameublement et des industries diverses, Baudour
- M Florent JANSSENS, Secrétaire général de la Centrale chrétienne des travailleurs des industries chimiques et des industries diverses, Bruxelles

CHILI — CHILE

DELEGUE GOUVERNEMENTAL — GOVERNMENT DELEGATE

- Son Excellence M Fernando GARCIA OLDINI, Envoyé extraordinaire et Ministre plénipotentiaire, ancien Ministre du Travail, Délégué permanent du Chili auprès du Bureau international du Travail

EMPIRE BRITANNIQUE — BRITISH EMPIRE

DELEGUE GOUVERNEMENTAL — GOVERNMENT DELEGATE

- Mr Frank Arthur NORMAN, O B E, Assistant Secretary, Ministry of Labour

Conseiller technique — Adviser

- Mr Charles John DUGDALE, Ministry of Labour

DELÉGUÉ DES EMPLOYEURS — EMPLOYERS' DELEGATE

- Mr Richard Lloyd ROBERTS, Chief Labour Officer of Imperial Chemical Industries, Ltd, London

Délégué suppléant et conseiller technique — Substitute delegate and adviser

- Mr Reginald HEWITT, Labour Officer of Clayton Aniline Co Ltd, Clayton, Manchester, Secretary of the Association of Chemical Employers

Conseillers techniques — Advisers

- Dr James Wilson ARMIT, B Sc, M A, Ph D, Technical Officer of Imperial Chemical Industries Ltd, London
- Mr Thomas Duncan Hunter BROWN, Labour Officer of the Gas and Coke Company, London, Member of Central Committee of Federation of Gas Employers
- Mr Harold Stewart KIRKALDY, Assistant Secretary of the National Confederation of Employers' Organisations
- Mr Ivor Paul LLEWELLYN, Director of Messrs Peter Spence & Sons, Ltd, Manchester, Member of Executive Board of the Association of Chemical Employers

DELÉGUÉ DES TRAVAILLEURS — WORKERS' DELEGATE

- Mr Charles DUKES, General Secretary of the National Union of General and Municipal Workers, Member of Trades Union Congress General Council

Conseillers techniques — Advisers

- Mr Charles William ALLISON, District Secretary, Transport and General Workers' Union
- Mr Herbert BULLOCK, National Industrial Officer of the National Union of General and Municipal Workers
- Mr John COOPER, District Industrial Officer of the National Union of General and Municipal Workers
- Mr Andrew DALGLEISH, National Secretary, Chemical and Engineering Trade Group of Transport and General Workers' Union

Mr John Gilmour, Member of Pharmaceutical Society, National
Organiser (Pharmacy Section) of the National Union of Distributive
and Allied Workers

Mr. Willie Holdsworth, General Organiser, Transport and General Workers' Union

ESPAGNE — SPAIN

DELEGU GOVERNMENTAL — GOVERNMENT DELEGATE

M. **Raimon LAMONICA FERNANDEZ**, Sous-Secrétaire d'Etat au Ministère du Travail

Conseiller technique — Adviser

M. Antonio FARRA RIBAS, Ministre d'Espagne à Berne

DELEGUE DES EMPLOYEURS — EMPLOYERS' DELEGATE

M. Francisco JUNOY RABAT, Président de l'Association « Estudios Económicos y sociales », Membre adjoint du Conseil d'administration du Bureau international du Travail

Conseiller technique — Adviser

M. Julien PAUCIOS GUTIERREZ, Ingénieur des mines

DELEGUE DES TRAVAILLEURS — WORKERS' DELEGATE

M. PASCAL LOMAS TANGUA, Secrétaire de l'Union générale des travailleurs

Conseiller technique — Adviser

M. Manuel Luis FERNANDEZ, Membre du Comité exécutif de l'Union
générale des Travailleurs

Secrétaire de la Délégation — Secretary to the Delegation

M. LEON MARTIN GRAYZO, Chef du service international au Ministère du Travail

FRANC FRANC

DEPARTMENT OF GOVERNMENTAL GOVERNMENT DELEGATE

*1. *Charles L. Stevenson, Deputy, President de la Commission des mines de la Chambre des Députés.*

11.3.11 technique - Advisor

 $\frac{d}{dt} \int_{\Omega} u^2 dx + \int_{\partial\Omega} u^2 dS = 0$

JAPON — JAPAN

DELEGUE GOUVERNEMENTAL — GOVERNMENT DELEGATE

Mr Jintsu KITAOKA, Acting Chief of the Permanent Japanese Delegation in Geneva

NORVÈGE — NORWAY

DELEGUE DES EMPLOYEURS — EMPLOYERS' DELEGATE

M Christian FRUANDSEN, Directeur adjoint de l'Association norvégienne des employeurs

DELEGUE DES TRAVAILLEURS — WORKERS' DELEGATE

M Nicolai NARSS, Président de l'Union des ouvriers de l'Industrie chimique

PAYS-BAS — NETHERLANDS

DELEGUE GOUVERNEMENTAL — GOVERNMENT DELEGATE

M A H W HACKI, Ingenieur, Directeur général du Service de l'inspection du travail

Conseiller technique — Adviser

M H J N H KISSLIJN, Ingenieur, Conseiller chimiste de l'inspection du travail

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Dr W A van DORP, directeur de la S A « Chemische Fabriek Naarden », Naarden

Conseiller technique — Adviser

M C H BUSCHMANN, Directeur de la Société cooperative « Eerste Nederlindsche Kunstmest Fabriek », « Vlaardingen »

DELEGUE DES TRAVAILLEURS — WORKERS' DELEGATE

M F BRUSSELI, secrétaire de la Ligue catholique des ouvriers de fabrique « St Willibrordus » et secrétaire de la Fédération internationale des ouvriers chrétiens de fabrique et de transport

Conseiller technique — Adviser

M K de JONGE, président de la Ligue néerlandaise des ouvriers d'usine et secrétaire de la Fédération internationale d'organisations d'ouvriers d'usine

TCHÉCOSLOVAQUIE — CZECHOSLOVAKIA

DELEGUE GOUVERNEMENTAL — GOVERNMENT DELEGATE

Mr Josef KOTEK, Conseiller de section supérieur au Ministère de la Prévoyance sociale

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DELEGUE DES EMPLOYEURS — EMPLOYERS' DELEGATE

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M Vaclav BOHACEK, Secrétaire de l'Union des ouvriers de l'industrie chimique

Conseillers techniques - - Advisers

M Ferd NADVORNIK, Secrétaire de la Fédération des ouvriers de l'industrie chimique

M Julius JOHN, Secrétaire de la Fédération des fabriques chimiques

TURQUIE — TURKEY

DELÉGUÉ GOUVERNEMENTAL — GOVERNMENT DELEGATE

M Necmeddin SADAK, Envoyé extraordinaire et Ministre plénipotentiaire en Suisse, Délégué permanent auprès de la Société des Nations et du Bureau international du Travail

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SECRÉTAIRE DU GROUPE DES EMPLOYEURS —

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